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California State University

San Bernardino

Inland Empire Wildlife Bingo

A Project Submitted to

The Faculty of the School of Education

In Partial Fulfillment of the Requirements of the

Degree of

Masters of Arts

in

Education: Environmental Education Option

By

Judy M. Glaze

San Bernardino, California

1991

Approved By:



Advisor: Dr. Darleen Stoner



Second Reader: Dr. Gary Negin

ABSTRACT

INLAND EMPIRE WILDLIFE BINGO

Judy Glaze, California State University San Bernardino

San Bernardino, 1991

"Inland Empire Wildlife Bingo" is a game designed to stimulate an interest in wildlife conservation and local history by introducing fourth and fifth grade students to the interconnections of the wildlife and the human inhabitants throughout the different local historical periods. A short description of five major historical periods provides insight into the development of our local area and how this development has affected wildlife. Descriptions of a selected number of animals give both scientific facts as well as their interrelationships within the economic and historical development of the Inland Empire.

Acknowledgements

I would like to offer my sincerest thanks to Dr. Darleen Stoner for her encouragement, support, and always being there for me.

I would also like to thank my family: Roger, Gary, and Jerry for their support, encouragement, and their willingness to give up their time with their wife/mother.

Table of Contents

Introduction.....	1
Review of Literature.....	2
Design of Project.....	4
Field Test Results.....	4
Bibliography.....	5
Appendix.....	7

INTRODUCTION

The purpose of this project is to create an interest in the conservation and history of the wildlife in the local area through the creation of a bingo game integrating science and social studies.

In developing this game it was necessary to research local history from several sources in order to obtain an accurate picture of the interrelationship between wildlife and the human inhabitants of the Inland Empire and how people have both abused and aided the local wildlife.

This game is especially useful for students in the fourth grade studying California history and for students in fifth grade studying United States history.

REVIEW OF LITERATURE

Games and simulations have been used extensively in education since the early 1960's to teach basic concepts to students.

Games are a significant form of experiential learning. (Thatcher, 1990) It is the active involvement by students that is the basis of learning through the media of games and simulations.

There are definite advantages to educational games:

1. there is increased student motivation and effectiveness in communicating concepts and facts (Manzo, 1984);
2. students show enthusiasm and frequently request to repeat the game;
3. slow learners are able to compete effectively with fast learners (Manzo, 1984);
4. students receive immediate feedback (manzo, 1984);
5. students often achieve a better grasp of a concept (Manza, 1984);
6. games provide a creative and diverse method of teaching. (Manzo, 1984)

Games should be carefully selected to accomplish certain goals. They should not be inserted into the curriculum randomly. (Dorn, 1989)

Games and simulations, if used appropriately, are an affective tool which will enhance the teacher's curriculum.

Design of the Project

In developing this game, it was necessary to research local history from several sources in order to obtain an accurate picture of both wildlife and human involvement throughout the history of the Riverside and San Bernardino Counties.

Research for this game was done utilizing the resources of several state and local agencies. The following is a list of those agencies:

1. San Bernardino City Library, California Room
2. State of California Department of Fish and Game, State Biologist-Long Beach headquarters
3. State of California Department of Fish and Game, State Biologist-San Bernardino office
3. San Bernardino County Museum
4. Living Desert Museum, Palm Desert, California

Field Testing Results

"Inland Empire Wildlife Bingo" received very high marks by the seven teachers evaluating the material. They felt it was very effective in teaching the material. All but two teachers rated every criteria with a "3," which is the highest rating. A "2" was the lowest it received.

A copy of the game and evaluation form are located in the Appendix.

Bibliography

- Anonymous. (1982). North american wildlife. New York: Readers Digest.
- Brown, J., and J. Boyd. (1922). History of San Bernardino and Riverside Counties, Lewis Publishing Co.
- Butler, J. Thomas. (1988). Games and simulations: creative educational alternatives. Tech Trends for Leaders in Education and Training. 33(4). 20-23.
- Butler, Richard J. (1988). Where are we? An analysis of the methods and focus of the research on simulation gaming? Simulation & Games: An International Journal of Theory, Design, and Research, 19(1). 3-24.
- Cadieux, Charles. (1984). These are the endangered. Washington D.C.: The Stone Wall Press, Inc.
- Chapman, Feldhamer. (1935). Wild mammals of North America. John Hopkins
- Dobie, J. Frank. (1949). The voice of the coyote. Boston: Little, Brown and Company.

- Dorn, Dean S. (1989). Simulation games: one more tool on the pedagogical shelf. Teaching Sociology: A Journal of Theory, Design, and Research, 15. 1-18.
- MacMahon, Dr. James A. (1990). The Audubon Society nature guides. New York: Alfred A. Knopf.
- Manzo, Vicki L. (1984). The effect of music games upon Conceptual learning of music skills among elementary students. Simulation & Games: An International Theory, Design, and Research, 15(4). 429-445.
- Robins, Chandler S., Bertel Bruun, and Herbert S. Zim. (1966). A guide to field identification: birds of North America. New York: Golden Press.
- Seymour, George. (n.d.). Wildlife leaflets, California State Department of Fish and Game.
- Shanks, Bernard. (1989). California Wildlife. Montana: Falcon Press Publishing Co., Inc.
- Thatcher, Donald. (1990, September). "Promoting Learning Through Games and Simulations," Simulation and Gaming, V. 21. No. 3, 262-273.

APPENDIX

INLAND EMPIRE WILDLIFE BINGO

Inland Empire Wildlife Bingo

"Inland Empire Wildlife Bingo" is a game designed to stimulate an interest in wildlife conservation and local history by introducing fourth and fifth grade students to the interconnections of the wildlife and the human inhabitants throughout the different local historical periods. A short description of five major historical periods provides insight into the development of our local area and how this development has affected wildlife. Descriptions of a selected number of animals give both scientific facts as well as their interrelationships within the economic and historical development of the Inland Empire.

This game can be used effectively as either a whole class activity, or as a center in the classroom.

Rules

Bingo can be achieved by placing four game pieces horizontally, vertically, or diagonally. There are many other ways you could also receive Bingo; use your imagination.

Wolverine
Gulo gulo

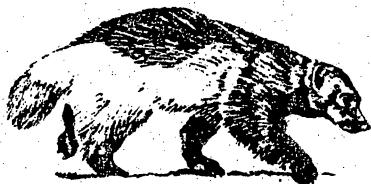
The Wolverine is a large fur-bearing carnivore weighing about 30 lbs. It is one of the largest members of the weasel family. It is extremely vicious; bears and mountain lions will retreat from their meal when approached by a wolverine.

Their food includes anything as large as deer, to gophers, mice, carrion, and various types of plants.

They live in high forests and are rare and seldom seen. It is believed that at one time the Wolverine lived in Big Bear Valley. A U.S. Forest Service archaeologist paper says, "By 1846, trappers moved into Bear Valley to take Wolverines." They have since become extinct in that area due to overhunting in the middle and late 1800's. There are no pelts or other remains for scientific identification as proof they lived in this area.

Today, in California, they are only found in the High Sierras and in the northwest coast counties.

Its fur is still in demand as a garment trim and for its moisture resistance.



Badger
Taxidea taxus



The Badger is an aggressive, large burrowing member of the weasel family. It has powerful forefeet for digging; its body is stout and flattened.

At one time it was very common on the valley floors. Today it lives in open areas and sandy soil areas, including the deserts.

The Badger eats mostly ground squirrels and mice; but it also eats birds, insects, reptiles, and some vegetation.

Bald Eagle
Haliaeetus leucocephalus

The Bald Eagle, also known as the sea eagle, white-tailed eagle, fish eagle, white-headed sea eagle, gray eagle, "Old Abe," "Bird-o-Freedom," and Alaska eagle, is the second largest raptor in California. It measures 30-43 inches in length and has a wingspan of 6-8 feet. Like most raptors, the female is larger than the male, and both have similar markings. Adults are easily recognized. They have a brownish black body with a distinctive white head and tail. The immature is often mistaken for a golden eagle since it lacks the white head and tail feathers.

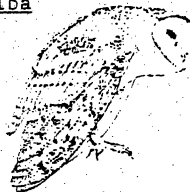
Bald Eagles mate for life. They build their nests 20-90 feet above the ground in large trees or snags. Each year they return to the same nest and add branches to it. A nest can reach 20 feet deep, 10 feet wide and weigh up to 2 tons, which is as much as a baby elephant weighs.

They feed mainly on fish but will readily eat carrion.

Today, the Bald Eagle is found throughout Southern California in the winter. Formerly it nested along the coast, including the Channel Islands, but today nesting occurs mainly in the interior of Northern California. Locally you can see the Bald Eagle at any of the large constructed lakes during the winter. They begin arriving in October and stay until April. In 1990, two eagles built a nest near Lake Arrowhead. An egg was laid, but the pair left before it hatched. The California Department of Fish and Game officials hope the pair will return and begin nesting.



Barn Owl
Tyto alba



The Barn Owl is easily recognized by its heart shaped face and light coloration. The color is predominantly white with buff, yellow and tawny shading freckled with dark specks.

The Barn Owl's eyes look forward in a fixed position and cannot move from side to side; however, the owl is able to turn its head almost 180 degrees. Its wing configuration allows it to fly silently at night in search for food. Experiments on the Barn Owl have shown that it requires only its ears and not its eyes to locate and catch its prey.

It prefers open fields, orchards and gardens. They are more nocturnal than other owls and normally don't begin hunting until twilight. It catches its prey with its talons.

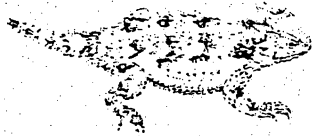
The Barn Owl feeds mainly on rodents with an occasional bird. Many farmers are glad to have the barn owl around since it eats such a high number of mice.

Usually they devour the catch on the ground where caught. It usually swallows its prey whole, but if it is too big, it will tear it apart. All parts; bones, skull and fur are swallowed.

Indigestible items such as hair and bones are cast up hours after eating in the form of pellets at an average rate of two pellets per 24 hour.

Barn Owls choose nesting sights almost anywhere: in old buildings, hollow trees or on or in the ground. No nest is built. The female lays from 5-7 pure white eggs over a period of 2-3 days.

Horned Lizard
Phrynosoma species



The Horned Lizard, sometimes called the "Horny Toad," is not a toad but a lizard. It has a very wide, flattened toad-like body.

Horned Lizards are found in desert and chaparral areas. They feed on slow moving, ground dwelling insects, spiders, ants, sow bugs, ticks and occasionally sphynx moth larvae and butterflies. They don't pursue their victims like most lizards, but in a toad-like fashion flicking out their long, sticky tongue.

After feeding or when ground temperatures get too high, they will seek refuge under a shrub where they spend the remainder of the day. Early evening, while the sand is still warm they "dig in" for the night. They stick their nose in the sand wriggling forward to create a furrow. They then flatten their body and use their spiny sides to shovel into the sand. Sometimes they bury themselves 3-4 inches.

Their coloration allows them to just blend into their surroundings. When caught they will try to scratch the captor with their horns. Occasionally, they spurt blood from the corners of their eyes.

In some species the eggs hatch shortly after being laid; others will bury their eggs which then hatch in a few weeks. The female never takes care of the young. When the eggs hatch, the young, or hatchlings, are on their own and begin hunting for food.

There are fewer and fewer Horned Lizards due to loss of habitat and people taking them home.

Quail
Lophortyx species

There are three species of quail in California: the Mountain Quail, Oreortyx pictus; the Gambel or desert quail, gambelii; and the California Valley Quail, californicus, our official state bird.

The Valley Quail is one of the most popular upland game bird in the state. It is found everywhere in the state, except in the high mountains and the desert areas in southeastern California.

Quail spend most of their time on the ground scratching for food, which consists mainly of seeds and some insects. At night they perch in bushes or trees safe from their enemies.

In the spring quail build their nest on the ground; 10-15 eggs are laid and in 22 days the eggs hatch. These young must have water within the first 24 hours of life or they will die. In 10 days the chicks' feathers have developed and they are ready for flight.

In the early days of California quail were numerous. In early settlement days, quail could be ordered in almost any hotel or restaurant. In the early 1880's 32,000 dozen were shipped to San Francisco from Los Angeles and San Bernardino counties. By the late 1800's quail were becoming scarce and market hunting was no longer profitable.

Expanding agriculture and over grazing have destroyed natural habitat. The California Department of Fish and Game has done several things to preserve this bird. They created hunting seasons and installed underground water storage devices known as "gallinaceous guzzlers" that collect rain water in semiarid regions of the state. Many of the guzzlers are located in San Bernardino and Riverside counties.



California Grizzly Bear
Ursus horribilis

The California Grizzly Bear was very common to the mountains and foothills, but they often foraged in the valleys. The Grizzly Bear was at the top of the food chain and had no natural enemies.

In 1846, when California became independent from Mexico, the Grizzly Bear became a part of the California flag.

During the Mission and Rancho Periods, vaqueros would capture the bears alive and have "bull" and "bear" contests. These were very popular.

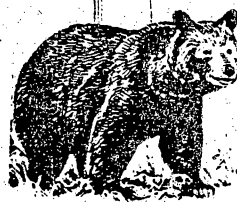
Its population was controlled by its food supply. Their numbers peaked in 1840 when 100,000 cattle were slaughtered by ranchers only for their hides and tallow. The carcasses were left in the open fields. The carcasses provided an abundant food supply for the bears. With more food available, their numbers increased.

The Grizzly Bear was killed by early trappers and miners for food. Later, the Grizzly Bear was killed because ranchers felt the Grizzly Bear was killing their stock. Sometimes, they were killed just for sport.

The last Grizzly Bear believed to have been killed was in 1922 in Tulare County.



Black Bear
Ursus americanus



The Black Bear is a smaller cousin of the Grizzly Bear. It is native to Central and Northern California. There is no scientific evidence that the Black Bear existed in the Southern California mountains until 1933 when it was introduced by the California Department and of Fish and Game for reasons of sport and wildlife enhancement. Twenty-seven bears were released: 11 at Crystal Lake, 6 at Big Bear, and 10 in Upper Santa Ana Canyon.

These bears have prospered and are widespread throughout the mountains. They are seldom seen though because they are nocturnal and shy in nature. They avoid human activity, but sometimes the bears will cause garbage and apple orchard damage.

Studies have been conducted by professors at California State Polytechnic University. They trapped 36 bears and fitted 9 with radio telemetry collars for ground and air surveillance. The studies were done at Mill Creek, Oak Glen and Banning Canyon. They found an average of one bear per square mile with an estimated population of 260 in the San Bernardino National Forest.

Bighorn Sheep
Ovis canadensis



They are one of the most spectacular of the remaining big game. These shy animals live in precipitous terrain and are not often seen.

Both the male and female Bighorn Sheep's horns that are never shed. Growth rings on the horn indicate the age of the animal.

The Bighorn Sheep are listed as an endangered species. They were hunted by early miners and market hunters because of their desirable meat, and suffered from diseases transmitted from domestic sheep and cattle. They also had to compete with feral burros at desert waterholes. The burros usually shoved the Bighorn away.

In 1883, fearing extinction, California passed a law protecting the Bighorn Sheep. Not much enforcement was done. In 1895, 50 were killed by miners at Mt. Baden Powell.

Extensive studies of the San Gabriel Mountain herd was completed. The study covered numbers of sheep, seasonal migration and herd dynamics. Fairly accurate population counts were obtained by helicopter observations during the winter months when the Bighorn Sheep flock to lower elevations. A stable population of about 700 sheep were found to exist. The San Geronio herd has about 80 Bighorn Sheep.

Pronghorn Antelope
Antilocapra americana

The Pronghorn, commonly called an antelope, is not a true antelope, but is in a family all by itself. It is strictly a North American animal and does not occur naturally in any other country.

Unlike the deer, the Pronghorn don't attempt to hide in heavy brush or timber. They prefer to live in open, grassy and sagebrush plains where they can see long distances. They depend on their keen eyesight and speed to escape their grow have enemies. They have been clocked at 60 MPH. It is the fastest mammal in the Western Hemisphere.

These animals once roamed where Redlands now stands and on the plains where March Air Force Base was built. They were also found where Los Flores Ranch is now located near Hesperia. Antelope roamed the flatlands from Riverside south toward Perris and Hemet and east to San Timoteo Canyon.

The last remnants of Southern California antelope herds were recorded at Ransburg on the Mojave Desert in 1932.

They have recently been re-released onto the Carrizo Plains near Maricopa. The Pronghorn Antelope became extinct in 1932 in Southern California because of hunting and a loss of habitat.



Coyote
Canis latrans

The Coyote, or "little wolf" as the Indians called it, is found throughout all the zones of California from the low deserts and valleys to the highest mountains.

The Indians revered the Coyote and held him sacred. Regardless of the tribe, the coyote played an important role in their legends.

When ranching and farming became major industries, people's opinion of the coyote became mixed. Farmers liked the Coyote since it killed rabbits and mice. The ranchers hated it because they accused the Coyote of killing domestic stock such as sheep and chickens. The Coyote has been poisoned, shot and trapped; yet it survives. In fact, its territory has expanded. The Coyote has learned to live with humans. It is even found on the outskirts of large cities.

For its food, the Coyote prey extensively on jackrabbits and cottontails. It also eats mice, ground squirrels, insects, fruits, berries and carrion. The Coyote is usually a solitary hunter; occasionally, several adults cooperate in hunting larger prey such as deer.



Beaver
Castor canadensis



The Beaver is the largest member of the rodent family in North America. An adult weighs from 30-40 lbs. It is semi-aquatic and needs a continuous supply of water to survive.

This animal actually changes its environment to suit its needs. If a pond is not available, it makes its own. The beaver will cut trees, large or small, and build a dam to trap water behind it in which to live.

The beaver feeds on the bark and tender twigs of water-loving trees such as willow, cottonwood and aspen. It will also feed on bulbs, roots, tules and grasses. They store food for winter and never hibernate.

The Beaver was unknown to both the Indian and Spanish in this area. In 1945, the California Department of Fish and Game, fearing the trapping of Beaver in the Sierra Nevada Mountains would cause its disappearance in California, cut back trapping in the Sierras and introduced the Beaver to the San Bernardino and San Jacinto Mountains. Those introduced to the San Jacinto Mountains did not survive; those introduced to the San Bernardino mountains have fared much better. There is a small and stable in the mountains.

Great Blue Heron
Ardea herodias

The heron family is found worldwide and consists of different subspecies of herons, egrets and night herons.

The principal food of the Great Blue Heron is fish of various kinds which it spears with its beak, tosses it into the air, and swallows. It also eats frogs and some aquatic insects. If hunting on land, its diet may include lizards, snakes and small mammals such as shrews, mice and gophers. The Great Blue Heron has been seen stalking a gopher much like a cat, waiting at its hole for it to stick its head above the ground.

Hérons prefer nesting in tall trees. The rookery may be in a swampy area or in huge oaks. Other herons are attracted and build their nests in the same trees. There may be as many as 30 or 40 nests in one tree.

A rookery may be used for many years. After several years the limbs and ground become whitewashed with excrements and this can kill the trees.

In the late 1800's the herons and egrets were nearly eradicated by plumage hunters. Today they are protected and have made a strong comeback.

Great Blue Herons can be seen at many lakes in our area where there is a good supply of fish.



Roadrunner
Geococcyx californianus



The Roadrunner, a member of the cuckoo family, can be seen in local deserts, valleys and chaparral areas.

Sometimes called the chaparral cock, it is easily recognized by its long tail, long strong legs and a slender overall length of nearly two feet. Its unusual feet with two toes forward and two toes back leave an "X" in the dust. Known for its swiftness, the roadrunner has been clocked at 15 MPH.

The roadrunner has a voracious appetite. Its diet includes lizards, scorpions, tarantulas, insects, centipedes, small mammals, bird eggs, small birds, and both poisonous and non-poisonous snakes. Most items are simply swallowed, but a big catch is softened by beating it on a rock.

Nests are rarely built on the ground. They are built in bushes 3-15 feet above the ground. A clutch ranges from 3-7 eggs. Sometimes two females will even share the same nest.

Wild Turkey
Meleagris gallopavo



Benjamin Franklin wanted the Wild Turkey as our national bird. It is native to the wooded areas of the Northeast and Southeast to the semiarid brush and woodland areas of the Southwest and Mexico; however, it did not originally occur in California.

In 1908 the California Department of Fish and Game first introduced the Wild Turkey into California; but it wasn't until 1989 that 90 tagged turkeys from South Dakota were released in the Big Bear area. In the 1990 hunting season, of the 10-15 birds killed by hunters, only 2-4 had tags. This proved to the California Department of Fish and Game that they were breeding in the Big Bear area.

Although similar in appearance to the domestic turkey, there are several differences. The Wild Turkey is more intelligent and the male is very colorful. During breeding season, the male spreads his tail, swells out his wattles, and rattles his wings, gobbling and strutting around.

The Wild Turkey is a perching bird and roosts 30-40 feet above the ground. The female makes a nest in leaf-lined hollows in the brush and lays as many as 20 eggs.

The diet of the Wild Turkey includes insects, berries, seeds and nuts.

California Condor
Gymnogyps californianus

The California Condor is a relic of the ice age. It weighs about 20 lbs. and has a wingspan of 9-10 feet; this is the largest wingspan of any bird in the world. At one time the Condor ranged from the Pacific Ocean to the Atlantic Ocean covering the southern half of the United States.

The condor has a long featherless neck, a bald head that is pinkish orange, and bright red eyes. Body plumage is black except for a white bar. When flying, broad white feathers along the entire forward part of the underwing are exposed.

In the wild they do not build a nest but choose a place in some inaccessible place such as a hollow in a tree, in a cave, or just a cleft of a rocky ledge. Reproduction is very slow. The female lays only one egg every other year.

The condor, like other vultures, do not kill their food. They live entirely on carrion. They soar effortlessly riding the air currents ranging out 100 or more miles in search for food.

Condors lived on the carcasses of the vast herds of antelope and elk which existed in California before 1870. During the Mission and Rancho Period great herds of cattle were spread over areas. Cattle were killed strictly for their tallow and hides; carcasses were left in the fields to rot. This practice provided meat for the condor.

The condors had no enemies except humans. Many condors were killed for their hollow quills which were used for gold storage by the early gold rush miners. They were killed by the curious just to be examined and discarded. Their eggs and feathers were sought by collectors. Loss of habitat has contributed greatly to its demise. Today the California Condor survives only in captivity. There are a total of 42 living at the San Diego Wild Animal Park and the Los Angeles Zoo. The Condor may be re-released back into the wild in 1991.



Opossum
Didelphis virginiana

The Opossum is the only true marsupial native to North America. The female has a pouch on her stomach in which to rear the young.

The Opossum is about 32 inches long, including its tail. It is about the size of a large house cat. The Opossum's fur is long, rather loose and coarse. The Opossum's long, round, nearly hairless, prehensile tail is used for balance when it climbs onto trees and fences.

The Opossum forages on anything edible: plants or animals. Mostly it feeds on soil-dwelling insects, small mice, bird eggs, nuts and berries.

dens in hollow trees, rock ledges, buildings or dry burrows of other animals.

What has aided this animal in surviving for millions of years is its curious trait when attacked or threatened. When this happens, it feigns death (playing 'possum) by lying completely still. The only way you know it's alive is by its warm body and its heartbeat; otherwise you would think it was dead.

It was first introduced into California in 1910 near San Jose, possibly by someone from the Southern United States brought it here for hunting and food. It adapted readily to its new home, increasing in numbers rapidly. Today it is found throughout the state, from the Sacramento and San Joaquin Valley south to the Mexican border. Although there is little value in its fur, there is a low, constant demand for it by the fur industry. It is used principally as a trim on cloth coats.



Peregrine Falcon
Falco peregrinus

The Peregrine Falcon, or Duck Hawk as it is sometimes called, is usually found near water. As with many birds of prey, the female is larger than the male and is similar in color. The color of the upper parts is bluish gray, darkest on the head and cheeks, which are nearly black. The underparts are cream-colored and the flanks are barred with white.

The Peregrine is one of the fastest birds alive. It has been clocked in a dive at over 200 MPH. Its swift speed allows it to stoop and strike the prey in the air. Its prey ranges from birds as large as ducks and pigeons to birds as small as nuthatches. Birds comprise 95% of its diet.

In the mid 1940's there were about 100 It nesting pair in California. By 1968 under there were perhaps 15-25 nesting pair. This decline was due to the use of DDT between 1846-1968.

DDT was a widely used chemical pesticide. Ingestion of DDT through the food chain caused the thinning of the Peregrine's eggshells, thus causing a drastic reduction of young.

Since 1968, when DDT was banned, there would has been a great effort to save all the birds affected by DDT from extinction. One method used to save the Peregrine was to rear the young in captivity and then release them into the wild. In 1991, a pair of Peregrine Falcons was released in the area of Mormon Rocks in the Cajon Pass. The Peregrine appears to be on the road to recovery.



Mountain Lion
Felis concolor

Puma, Cougar, Panther, Painter, Catamount, Mountain Lion—all are names for the solitary big cat weighing about 165 lbs. and about 8 ft. in length.

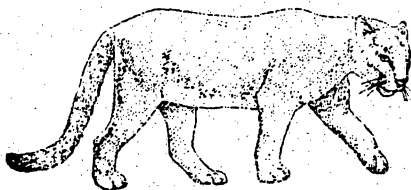
The Mountain Lion's main food is deer, but it also feeds on small mammals such as rabbits, hares and mice. When the Mountain Lion kills a large prey, it buries what it isn't able to eat. It later returns to finish eating. The Indians would sometimes find the buried kill of a Mountain Lion and dig it up and use it for food.

The Mountain Lion was common during the early history of California; now only a few survive. It has been hunted since the first settlements because ranchers felt Mountain Lions killed their livestock and hunters felt they killed too many deer.

During the Mission and Rancho Periods one bull for each dead Mountain Lion was offered because of livestock loss the ranchers blamed on the Mountain Lion.

From 1907-1963 California paid bounties as well as hired salaried hunters and trappers. During this time more than 12,500 lions were killed in California; bounties ranged to as much as \$95 for males and \$150 for females.

Mountain Lions now maintain a small but stable population of 20-30 lions in the San Bernardino National Forest. They have been protected since 1969.



Skunks



Skunks comprise a group of conspicuous black and white carnivores, infamous for their offensive odor. The color pattern could possibly be a warning sign to predators. Skunks can accurately fire their fine spray of acrid fluid 3-4m. They have few enemies.

All skunks are omnivorous. Their diet includes small rodents, insects, worms, small ground-nesting birds, carrion and various types of plants.

There are two species of skunks in California: Striped Skunk and Spotted Skunk.

Striped Skunk
Mephitis mephitis

The Striped Skunk is easily recognizable by the two broad stripes that run down its back and bushy tail.

When provoked, the Striped Skunk arches its back, raises its tail, stamps its front feet and shuffles backward. If this warning is not heeded, then it ejects its fine spray of acrid, blinding fluid from its anal glands.

It is a nocturnal animal foraging at dusk and after nightfall in search of food.

Spotted Skunk
Spilogale putorius

The Spotted Skunk is considerably smaller than the Striped Skunk, being about half its size. Its fur is much softer and shinier than its larger cousin. Its pattern is broken up into spots of white on black.

The Spotted Skunk's warning is a handstand; it puts its weight on its front feet, raises its hindquarters into the air, and aims at his enemy. If the warning is not heeded, it sprays. Its spray is even sharper and more acrid than the Striped Skunk.

It is also a nocturnal animal. It depends more heavily on small mammals for its food than its larger relative.

Rancho Period
1834-1850

The Rancho Period began with the desecularization of the land owned by the Catholic Church. It was taken away by the Mexican government. The Mexican Government then awarded very large land grants to prominent Mexican families living in California.

During the Rancho Period the valleys were one great livestock range with thousands of cattle and large herds of horses.

Changes became widespread. There was continued pressure on the antelope herds, the deer herds and the Grizzly Bears from competition with livestock for the same food. The hunting of these animals also increased.

Modern Period
1883-Present

This period began with the building of Bear Valley Dam by Frank Brown in 1883-1884. Dramatic expansion of citrus orchards on the valley floors destroyed most of the natural habitat. In the early years of this period, the canyons and mountains were damaged, not by settlement, but by lumbering, grazing, trapping and aggressive hunting. Some animal species such as the California Grizzly Bear, Pronghorn, and Wolverine became extinct in this area. As the years past, valleys, canyons and mountains developed urban sprawl. Animals which have survived urban sprawl, have adapted to lived with human settlements.

Indian Period
1000-1819

There were five major Indian Tribes in Southern California which were nomadic and lived off the land. A portion of their food came from the animals they could hunt such as rabbits, ground squirrels, deer and antelope. All parts of the animal were used: the skin for clothing; bones for needles or toys; and sinew for thread. Indians would spend their winter on the valley floor or in the deserts. Summers were usually spent in the foothills or mountains gathering food.

The California Grizzly Bear was never hunted by the Indians. It was held sacred. Only when a Grizzly Bear was wounded did the Indian hunt this animal.

Mission Period
1810-1834

The Mission Period began in the Inland Empire when the Spanish built the San Gabriel Mission in 1810 and the Asistencia in Redlands about 1819. It ended in 1834 with the desecularization of the church. The Spanish brought many changes. They introduced many of our farm animals such as horses, cattle, pigs, chickens, goats and sheep.

Large herds of cattle and horses began to appear in the valleys. These herds began putting tremendous pressure on the native animals such as Pronghorn, Grizzly Bear and Mule Deer because they competed for the same food.

Mormon Period
1850-1857

This period began in 1850 when the Mormon pioneers crossed the desert and settled in the San Bernardino Valley. It ended in about 1857 when the Mormon settlers returned to Salt Lake City, Utah.

Major changes began taking place. Major farming, trapping and timber cutting began. There was widespread homesteading and farming. The diversion of mountain streams to the valley floors for irrigation purposes began to occur.

There was continued pressure on the native animals, and their numbers were drastically reduced. Some native animals may have disappeared from this area during this period.

This period begins with the settlement of the San Bernardino Valley.

Mormon Period

Diversion of mountain streams for irrigation began during this period.

Mormon Period

This period begins with the building of the Bear Valley Dam.

Modern Period

Expansion of citrus groves causes widespread destruction of the valley floors and adjacent slopes.

Modern Period

Animals of canyons and mountain continue to disappear due to lumbering, grazing and hunting during this period.

Modern Period

Continued land development put constant pressure on plants and animals alike during this period.

Modern Period

This animal has been re-released into the Carrizo Plains near Maricopa.

Pronghorn Antelope

These are the main food source of mountain lion.

Mule Deer

Missions offered one bull for each one of these animals.

Mountain Lion

From 1907-1963 more than 12,500 were killed.

Mountain Lion

A \$95 bounty for each male was offered by the State of California.

A \$150 bounty for each female was offered by the State of California.

Mountain Lion

Mountain Lion

Its numbers fluctuate according to the deer herd population.

The State of California hired trappers and hunters to kill this animal.

Mountain Lion

Mountain Lion

Low deer populations were blamed on this animal and 300 were killed in 1960.

This bird once ranged from the Atlantic to the Pacific.

Mountain Lion

California Condor

This animal only survives in captivity.

People plan on re-releasing this bird as early as 1991.

California Condor

California Condor

During this period of time some of the Indians were enslaved.

The Spanish introduced many farm animals during this time.

Mission Period

Mission Period

The State Department of Fish and Game introduced this bear in 1933 to Big Bear.

This bear is a shy, nocturnal animal.

Black Bear

Black Bear

These bears sometimes raid garbage containers and damage apple orchards.

This reptile is sometime called the "Horny Toad."

Black Bear

Horned Lizard

It can spurt blood from the corner of its eyes.

This lizard catches its food with its long, sticky tongue.

Horned Lizard

Horned Lizard

There may be as many as 30-40 nests in one tree.

This bird spears fish with its beak and tosses it into the air and swallows it.

Great Blue Heron

Great Blue Heron

In the 1800's this bird was hunted for its plumage.

This bird has been clocked running at 15 mph.

Great Blue Heron

Roadrunner

One bull for each mountain lion was offered during this period.

Mission Period

During this period large herds of cattle and horses roamed the valleys.

Rancho Period

Grizzlies were captured for fights with bulls during this period.

Rancho Period

Cattle were killed just for their tallow and hides during this period.

Rancho Period

Pressures on antelope, grizzly, and deer from hunting, along with competition with livestock began.

Rancho Period

During this period large herds of cattle and horses roamed the valleys.

Rancho Period

During this period, this group of pioneers crossed the desert and settled San Bernardino.

Mormon Period

Widespread homesteading began with this period.

Mormon Period

This animal was introduced into Southern California in 1933 for sport.

Black Bear

This bear is native to Central and Northern California, even though it occurs in California.

Black Bear

This bear is not on the state flag.

Black Bear

This animal can be golden, brown or black.

Black Bear

This bird winters at lakes in Southern California.

Bald Eagle

This animal is the symbol of our country.

Bald Eagle

This bird's feathers were used by Indians for ceremonial purposes.

Bald Eagle

This shy animal lives on rocky slopes.

Bighorn Sheep

It is related to a domestic farm animal.

Bighorn Sheep

This hoofed animal is hunted by trophy hunters.

Bighorn Sheep

This animal can accurately fire its acrid fluid.

Skunk

At one time this large fur-bearing animal is believed to have lived in Big Bear Valley.

Wolverine

This is the largest member of the weasel family in California.

Wolverine

This mammal is considered extremely vicious by humans.

Wolverine

It is an aggressive, large burrowing member of the weasel family.

Badger

This mammal has powerful forefeet for digging.

Badger

This hoofed mammal was once very common in the valley of Southern California.

Pronghorn Antelope

It is the swiftest mammal of North America.

Pronghorn Antelope

This hoofed animal became extinct in Southern California due to over hunting and loss of habitat.

Pronghorn Antelope

This animal was used to fight bulls by the Spanish settlers.

Grizzly Bear

This animal appears on the California State flag.

Grizzly Bear

Its population was increased when the Spanish killed 100,000 cattle for their hides and tallow.

Grizzly Bear

This large rodent was introduced in 1945 to help save the species.

Beaver

It is the largest member of the rodent family in North America.

Because of their valuable pelt, they almost became extinct.

Beaver

Beaver

It is the only marsupial native to North America.

When threatened, it pretends to be dead.

Opossum

Opossum

The female carries her babies in a pouch.

This animal can hang by its tail.

Opossum

Opossum

Both the striped and spotted species live in California.

It emits an obnoxious odor.

Skunk

Skunk

This bird is recognized by its long tall, strong legs and slender body.

Roadrunner

This bird's track looks like an "X".

Roadrunner

This bird has a heart shaped face.

Barn Owl

Indigestible items are cast up in the form of a pellet.

Barn Owl

This bird can turn its head almost 180 degrees.

Barn Owl

Many farmers like to have this bird around since it eats lots of mice.

Barn Owl

It is often called the "Duck Hawk."

Peregrine Falcon

This bird has been clocked at over 200 mph in a dive.

Peregrine Falcon

It almost became extinct because of the use of DDT.

Peregrine Falcon

In 1991 a pair was released in Cajon Pass at Mormon Rocks.

Peregrine Falcon

This is California's official state bird.

Valley Quail

This is a very popular game bird

Valley Quail

Gallinaceous guzzlers were installed to supply water to these birds.

Valley Quail

32,000 dozen were shipped to San Francisco from Los Angeles and San Bernardino counties.

Valley Quail

Benjamin Franklin wanted it as our national symbol.

Wild Turkey

It was introduced to the Big Bear area in 1989.

Wild Turkey

This wild bird is more intelligent than its domestic cousin.

Wild Turkey

The male has a rainbow of colors to make this a very colorful bird.

Wild Turkey

The Indians called it "Little Wolf."

Coyote

This is the only mammal people have tried to kill off, yet it has survived and has expanded its territory.

Coyote



INLAND EMPIRE WILDLIFE BINGO



BADGER	QUAIL	CALIFORNIA CONDOR	BEAVER
BLACK BEAR	PRONGHORN ANTELOPE	ROADRUNNER	BARN OWL
PEREGRINE FALCON	SKUNKS	MISSION PERIOD	MODERN PERIOD
COYOTE	WILD TURKEY	HORNED LIZARD	WOLVERINE



INLAND EMPIRE WILDLIFE BINGO



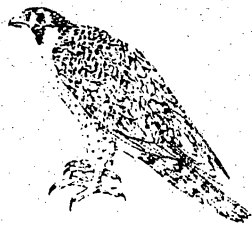
CALIFORNIA CONDOR	COYOTE	BEAVER	BARN OWL
WOLVERINE	BALD EAGLE	BADGER	GREAT BLUE HERON
HORNED LIZARD	ROADRUNNER	QUAIL	BIGHORN SHEEP
WILD TURKEY	PRONGHORN ANTELOPE	CALIFORNIA GRIZZLY BEAR	BLACK BEAR



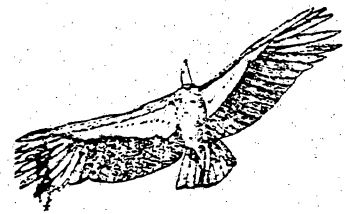
INLAND EMPIRE WILDLIFE BINGO



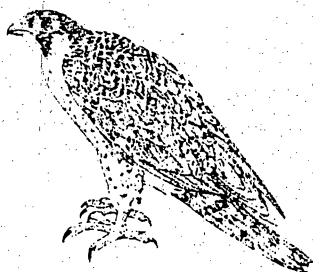
WOLVERINE	MORMON PERIOD	BADGER	SKUNKS
MODERN PERIOD	HORNED LIZARD	WILD TURKEY	PRONGHORN ANTELOPE
BLACK BEAR	RANCHO PERIOD	BEAVER	MOUNTAIN LION
OPOSSUM	INDIAN PERIOD	BALD EAGLE	COYOTE



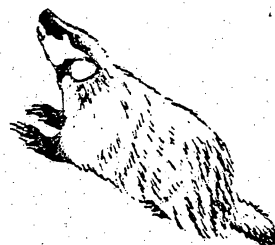
INLAND EMPIRE WILDLIFE BINGO



BLACK BEAR	OPOSSUM	PEREGRINE FALCON	INDIAN PERIOD
RANCHO PERIOD	MOUNTAIN LION	SKUNKS	MORMON PERIOD
WOLVERINE	HORNED LIZARD	CALIFORNIA CONDOR	BALD EAGLE
ROADRUNNER	CALIFORNIA GRIZZLY BEAR	BLACK BEAR	BADGER



INLAND EMPIRE WILDLIFE BINGO



MOUNTAIN LION	RANCHO PERIOD	MISSION PERIOD	MORMON PERIOD
HORNED LIZARD	CALIFORNIA CONDOR	BALD EAGLE	WOLVERINE
QUAIL	COYOTE	BARN OWL	BIGHORN SHEEP
BLACK BEAR	MOUNTAIN LION	GREAT BLUE HERON	PRONGHORN ANTELOPE



INLAND EMPIRE WILDLIFE BINGO



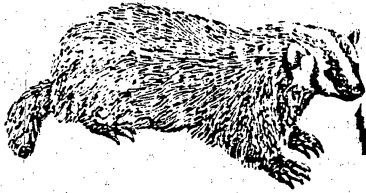
PEREGRINE FALCON	SKUNKS	MISSION PERIOD	MORMON PERIOD
HORNED LIZARD	CALIFORNIA CONDOR	BALD EAGLE	ROADRUNNER
CALIFORNIA GRIZZLY BEAR	MOUNTAIN LION	RANCHO PERIOD	WOLVERINE
QUAIL	COYOTE	BARN OWL	BIGHORN SHEEP



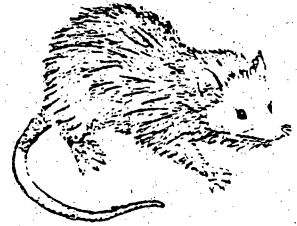
INLAND EMPIRE WILDLIFE BINGO



PRONGHORN ANTELOPE	BLACK BEAR	PEREGRINE FALCON	SKUNKS
MISSION PERIOD	WOLVERINE	RANCHO PERIOD	BADGER
MODERN PERIOD	QUAIL	HORNED LIZARD	WILD TURKEY
COYOTE	BALD EAGLE	CALIFORNIA CONDOR	BEAVER



INLAND EMPIRE WILDLIFE BINGO



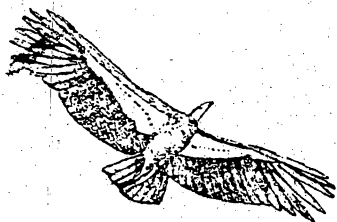
BIGHORN SHEEP	INDIAN PERIOD	MODERN PERIOD	MORMON PERIOD
BLACK BEAR	OPOSSUM	WOLVERINE	MOUNTAIN LION
BADGER	SKUNKS	HORNED LIZARD	BIGHORN SHEEP
QUAIL	PRONGHORN ANTELOPE	CALIFORNIA CONDOR	BIGHORN SHEEP



INLAND EMPIRE WILDLIFE BINGO



BARN OWL	ROADRUNNER	PRONGHORN ANTELOPE	BLACK BEAR
OPOSSUM	PEREGRINE FALCON	SKUNKS	MOUNTAIN LION
MISSION PERIOD	MORMON PERIOD	WOLVERINE	QUAIL
RANCHO PERIOD	WILD TURKEY	COYOTE	BEAVER



INLAND EMPIRE WILDLIFE BINGO



HORNED LIZARD	BARN OWL	BIGHORN SHEEP	BADGER
WOLVERINE	BEAVER	PRONGHORN ANTELOPE	SKUNKS
MISSION PERIOD	GREAT BLUE HERON	OPOSSUM	MOUNTAIN LION
CALIFORNIA GRIZZLY BEAR	PEREGRINE FALCON	ROADRUNNER	MODERN PERIOD



INLAND EMPIRE WILDLIFE BINGO



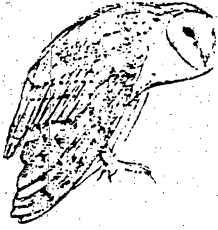
MORMON PERIOD	WILD TURKEY	SKUNKS	BADGER
INDIAN PERIOD	HORNED LIZARD	PEREGRINE FALCON	MOUNTAIN LION
MODERN PERIOD	GREAT BLUE HERON	BIGHORN SHEEP	CALIFORNIA GRIZZLY BEAR
OPOSSUM	BEAVER	QUAIL	BARN OWL



INLAND EMPIRE WILDLIFE BINGO



WOLVERINE	HORNED LIZARD	QUAIL	CALIFORNIA CONDOR
CALIFORNIA GRIZZLY BEAR	BIGHORN SHEEP	GREAT BLUE HERON	BALD EAGLE
OPOSSUM	MOUNTAIN LION	INDIAN PERIOD	RANCHO PERIOD
WILD TURKEY	BADGER	SKUNKS	MORMON PERIOD



INLAND EMPIRE WILDLIFE BINGO



RANCHO PERIOD	MORMON PERIOD	BEAVER	BIGHORN SHEEP
BALD EAGLE	ROADRUNNER	BARN OWL	GREAT BLUE HERON
BLACK BEAR	SKUNKS	WILD TURKEY	BADGER
WILD TURKEY	QUAIL	PEREGRINE FALCON	WOLVERINE



INLAND EMPIRE WILDLIFE BINGO



OPOSSUM	MOUNTAIN LION	INDIAN PERIOD	RANCHO PERIOD
BADGER	WILD TURKEY	BEAVER	GREAT BLUE HERON
PRONGHORN ANTELOPE	OPOSSUM	MOUNTAIN LION	WOLVERINE
HORNED LIZARD	WILD TURKEY	CALIFORNIA CONDOR	COYOTE



INLAND EMPIRE WILDLIFE BINGO



SKUNKS	RANCHO PERIOD	MORMON PERIOD	BADGER
QUAIL	WILD TURKEY	BEAVER	BARN OWL
CALIFORNIA CONDOR	PEREGRINE FALCON	PRONGHORN ANTELOPE	CALIFORNIA GRIZZLY BEAR
OPOSSUM	MOUNTAIN LION	SKUNKS	WILD TURKEY



INLAND EMPIRE WILDLIFE BINGO



INDIAN PERIOD	RANCHO PERIOD	MORMON PERIOD	WOLVERINE
HORNED LIZARD	WILD TURKEY	COYOTE	BEAVER
BALD EAGLE	BARN OWL	ROADRUNNER	PRONGHORN ANTELOPE
BLACK BEAR	PEREGRINE FALCON	SKUNKS	BIGHORN SHEEP



INLAND EMPIRE WILDLIFE BINGO



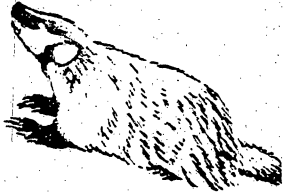
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BLACK BEAR	GREAT BLUE HERON	HORNED LIZARD	MODERN PERIOD
WOLVERINE	MOUNTAIN LION	BARN OWL	COYOTE
PEREGRINE FALCON	OPOSSUM	BADGER	BEAVER



INLAND EMPIRE WILDLIFE BINGO



BIGHORN SHEEP	SKUNKS	CALIFORNIA CONDOR	OPOSSUM
MOUNTAIN LION	BEAVER	WILD TURKEY	QUAIL
HORNED LIZARD	WOLVERINE	BADGER	BALD EAGLE
BLACK BEAR HERON	ROADRUNNER	PRONGHORN ANTELOPE	PEREGRINE FALCON



INLAND EMPIRE WILDLIFE BINGO



COYOTE	BEAVER	BALD EAGLE	BARN OWL
GREAT BLUE HERON	ROADRUNNER	PRONGHORN ANTELOPE	BIGHORN SHEEP
BLACK BEAR	HORNED LIZARD	OPOSSUM	PEREGRINE FALCON
MISSION PERIOD	SKUNKS	MODERN PERIOD	QUAIL



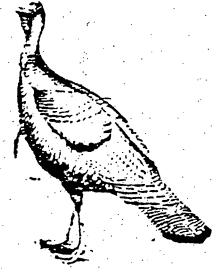
INLAND EMPIRE WILDLIFE BINGO



WILD TURKEY	MODERN PERIOD	BIGHORN SHEEP	MORMON PERIOD
PRONGHORN ANTELOPE	CALIFORNIA GRIZZLY BEAR	BLACK BEAR	OPOSSUM
PEREGRINE FALCON	MOUNTAIN LION	SKUNKS	WOLVERINE
BADGER	HORNED LIZARD	QUAIL	ROADRUNNER



INLAND EMPIRE WILDLIFE BINGO



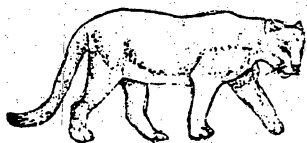
QUAIL	INDIAN PERIOD	WILD TURKEY	WOLVERINE
BADGER	HORNED LIZARD	MISSION PERIOD	BADGER
CALIFORNIA CONDOR	COYOTE	BEAVER	BALD EAGLE
RANCHO PERIOD	BARN OWL	GREAT BLUE HERON	ROADRUNNER



INLAND EMPIRE WILDLIFE BINGO



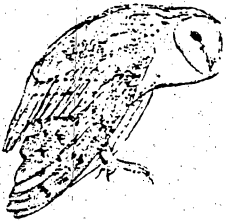
CALIFORNIA GRIZZLY BEAR	OPOSSUM	MOUNTAIN LION	MISSION PERIOD
SKUNKS	MODERN PERIOD	BADGER	HORNED LIZARD
MORMON PERIOD	CALIFORNIA CONDOR	COYOTE	BEAVER
BALD EAGLE	BARN OWL	GREAT BLUE HERON	ROADRUNNER



INLAND EMPIRE WILDLIFE BINGO



BEAVER	WOLVERINE	BADGER	HORNED LIZARD
SKUNKS	BLACK BEAR	MORMON PERIOD	RANCHO PERIOD
BEAVER	CALIFORNIA CONDOR	QUAIL	BLACK BEAR
OPOSSUM	MOUNTAIN LION	BARN OWL	ROADRUNNER



INLAND EMPIRE WILDLIFE BINGO



CALIFORNIA CONDOR	BEAVER	BALD EAGLE	BARN OWL
BIGHORN SHEEP	GREAT BLUE HERON	OPOSSUM	PEREGRINE FALCON
MOUNTAIN LION	SKUNKS	MORMON PERIOD	RANCHO PERIOD
HORNED LIZARD	QUAIL	CALIFORNIA CONDOR	COYOTE



INLAND EMPIRE WILDLIFE BINGO



ROADRUNNER	PRONGHORN ANTELOPE	BLACK BEAR	PEREGRINE FALCON
SKUNKS	WOLVERINE	BADGER	HORNED LIZARD
QUAIL	CALIFORNIA CONDOR	BEAVER	BARN OWL
GREAT BLUE HERON	BIGHORN SHEEP	PRONGHORN ANTELOPE	CALIFORNIA GRIZZLY BEAR



INLAND EMPIRE WILDLIFE BINGO



WILD TURKEY	COYOTE	BEAVER	BARN OWL
ROADRUNNER	BIGHORN SHEEP	PRONGHORN ANTELOPE	BLACK BEAR
OPOSSUM	PEREGRINE FALCON	SKUNKS	INDIAN PERIOD
MODERN PERIOD	MISSION PERIOD	BADGER	WOLVERINE



INLAND EMPIRE WILDLIFE BINGO



PRONGHORN ANTELOPE	OPOSSUM	SKUNKS	BADGER
WOLVERINE	COYOTE	BEAVER	ROADRUNNER
INDIAN PERIOD	HORNED LIZARD	QUAIL	WILD TURKEY
CALIFORNIA CONDOR HERON	CALIFORNIA GRIZZLY BEAR	BALD EAGLE	RANCHO PERIOD



INLAND EMPIRE WILDLIFE BINGO



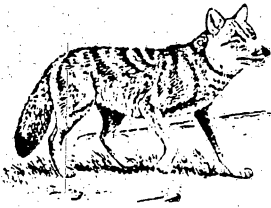
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GREAT BLUE HERON	BIGHORN SHEEP	CALIFORNIA GRIZZLY BEAR	OPOSSUM
MOUNTAIN LION	SKUNKS	MISSION PERIOD	RANCHO PERIOD
MORMON PERIOD	WOLVERINE	BADGER	QUAIL



INLAND EMPIRE WILDLIFE BINGO



BALD EAGLE	GREAT BLUE HERON	BIGHORN SHEEP	CALIFORNIA GRIZZLY BEAR
OPOSSUM	MOUNTAIN LION	INDIAN PERIOD	MORMON PERIOD
MISSION PERIOD	WOLVERINE	HORNED LIZARD	WILD TURKEY
COYOTE	BALD EAGLE	BARN OWL	CALIFORNIA CONDOR



INLAND EMPIRE WILDLIFE BINGO



ROADRUNNER	BARN OWL	BLACK BEAR	MISSION PERIOD
HORNED LIZARD	BALD EAGLE	CALIFORNIA GRIZZLY BEAR	INDIAN PERIOD
BADGER	BEAVER	PRONGHORN ANTELOPE	SKUNKS
WOLVERINE HERON	COYOTE	HORNED LIZARD	QUAIL



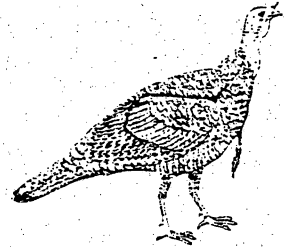
INLAND EMPIRE WILDLIFE BINGO



BARN OWL	OPOSSUM	MOUNTAIN LION	WOLVERINE
PEREGRINE FALCON	BADGER	HORNED LIZARD	SKUNKS
BLACK BEAR	QUAIL	CALIFORNIA GRIZZLY BEAR	COYOTE
WILD TURKEY	ROADRUNNER	RANCHO PERIOD	BEAVER



INLAND EMPIRE WILDLIFE BINGO



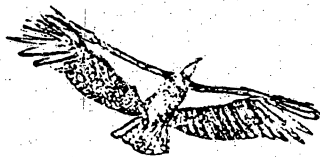
BALD EAGLE	GREAT BLUE HERON	BIGHORN SHEEP	CALIFORNIA GRIZZLY BEAR
MODERN PERIOD	MISSION PERIOD	MOUNTAIN LION	OPOSSUM
WOLVERINE	HORNED LIZARD	WILD TURKEY	COYOTE
BEAVER	CALIFORNIA CONDOR	BARN OWL	ROADRUNNER



INLAND EMPIRE WILDLIFE BINGO



BEAVER	BADGER	QUAIL	COYOTE
WOLVERINE	ROADRUNNER	OPOSSUM	SKUNKS
RANCHO PERIOD	HORNED LIZARD	WILD TURKEY	MORMON PERIOD
CALIFORNIA CONDOR	BALD EAGLE	BARN OWL	GREAT BLUE HERON



INLAND EMPIRE WILDLIFE BINGO



COYOTE	INDIAN PERIOD	OPOSSUM	PEREGRINE FALCON
MORMON PERIOD	MOUNTAIN LION	MODERN PERIOD	SKUNKS
WOLVERINE	BADGER	ROADRUNNER	BEAVER
BARN OWL	BLACK BEAR	OPOSSUM	QUAIL



INLAND EMPIRE WILDLIFE BINGO



CALIFORNIA GRIZZLY BEAR	CALIFORNIA CONDOR	PRONGHORN ANTELOPE	BLACK BEAR
PEREGRINE FALCON	GREAT BLUE HERON	WILD TURKEY	HORNED LIZARD
BALD EAGLE	BARN OWL	BIGHORN SHEEP	MOUNTAIN LION
INDIAN PERIOD	WOLVERINE	MISSION PERIOD	BADGER



INLAND EMPIRE WILDLIFE BINGO



BADGER	MISSION PERIOD	MOUNTAIN LION	INDIAN PERIOD
HORNED LIZARD	SKUNKS	QUAIL	PEREGRINE FALCON
WILD TURKEY	OPOSSUM	CALIFORNIA CONDOR	BLACK BEAR
COYOTE	BEAVER	BIGHORN SHEEP	ROADRUNNER



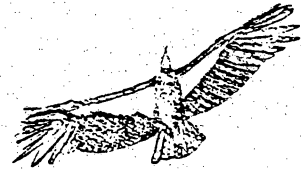
INLAND EMPIRE WILDLIFE BINGO



MODERN PERIOD	ROADRUNNER	BIGHORN SHEEP	GREAT BLUE HERON
BARN OWL	CALIFORNIA GRIZZLY BEAR	BALD EAGLE	PRONGHORN ANTELOPE
BLACK BEAR	SKUNKS	MOUNTAIN LION	BEAVER
WILD TURKEY	QUAIL	PEREGRINE FALCON	WOLVERINE



INLAND EMPIRE WILDLIFE BINGO



WOLVERINE	MORMON PERIOD	BADGER	SKUNKS
MODERN PERIOD	HORNED LIZARD	WILD TURKEY	PRONGHORN ANTELOPE
BLACK BEAR	RANCHO PERIOD	BEAVER	MOUNTAIN LION
OPOSSUM	INDIAN PERIOD	BALD EAGLE	COYOTE

Suggested Followup Activities

1. Have students do library research on a specific animal. Write and illustrate report.
2. Divide the class into groups and have each group do a report and/or mural on an historical period.
3. On a topographic map of San Bernardino and Riverside Counties locate the different biomes which are:
Desert, Wetlands, Chaparral, Yellow Pine Forest, Lake and Pond, Mountain Meadow, Inland Marsh, Oak Woodland, Ponderosa Pine Forest, and Woodland-Juniper. Then, have groups of students study the biomes of the Inland Empire.
4. Using Class Project, a California Department of Education publication, do the following activities:
 - a. "Locating Wetlands," and/or "The Importance of Wetlands";
 - b. Forest/Watershed Management, all activities;
 - c. Wildlife Habitat Management, all activities.

Dear Teacher,

"Inland Empire Wildlife Bingo" is designed to stimulate an interest in the conservation of wildlife in our local area through the integration of science and social studies. The game is designed to be used at the fourth or fifth grade level.

Please review "Inland Empire Wildlife Bingo" and evaluate it using the following criteria:

	LOW		HIGH
1. Language appropriate	1	2	3
2. Material grade appropriate	1	2	3
3. Comprehension of game	1	2	3
4. Materials interesting	1	2	3
5. Format of game	1	2	3
6. Size of board	1	2	3
7. Number of questions	1	2	3
8. Difficulty of questions	1	2	3
9. Difficulty of information cards	1	2	3
10. Number of information cards	1	2	3

Comments _____

Suggestions _____
