Arizona Wildlife
THE TERRITORIAL YEARS | 1863–1912

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Arizona Game and Fish Department
Phoenix, Arizona
In the vicinity of the Mohawk Mountains (where Kearny's little army saw bighorn in 1846) Antoine Leroux shot a "fine black-tailed deer." Deer and antelope were occasionally seen along the Gila, but as Bartlett (1854, 2:197) tells us, the wagons alarmed them, and the hunters had to go out well in advance of the train in order to succeed.

On June 23, a short distance below the great bend of the Gila, Bartlett described their campsite (see Fig. 9):

So thick was the wood[s], that it was found impracticable to force our wagons through. This was the most beautiful spot we had encamped in since leaving the little valley of San Isabel, in California. We pitched no tents, finding a better and more agreeable protection in the thick and overhanging willows ... (Bartlett 1854, 2:199).

Just below the Pima villages, Bartlett was amazed to find the Gila completely dry — the Indians had diverted the entire flow onto their fields. Three days later on July 3, Bartlett traveled about 15 miles north to the Salt River:

The river we found to be from 80 to 120 feet wide, from two to three feet deep, and both rapid and clear. ... The water is perfectly sweet, and neither brackish nor salt, as would be inferred from the name. We saw from the banks many fish in its clear waters, and caught several of the same species as those taken in the Gila. ... Along the immediate margin of the stream large cotton-wood trees grow (Bartlett 1854, 2:240-241).

About 12 miles above the Pimas, on July 12, 1852, Bartlett again found the Gila flowing:

The river was here much contracted, with steep banks fifteen feet high, and completely overhung with willows and cotton-woods, the latter from the opposite banks, meeting at the top. Its width was less than fifty feet, and its greatest depth did not exceed nine inches (Bartlett 1854, 2:260).
Birdseye's survey of northwestern Arizona wildlife, such as E. W. Haas, was interested more in absences than in its mere presence. The shadowed discovery, and applying were important than developing lists of interest involved the territory's biotic communities, but needed to understand the functions of temperature and rainfall. Grinnell's study of relationships to physical barriers in understanding the parameters of the winter would be the principal thrust of his work in the twentieth century.

California biologist and student of the desert, Grinnell finished a monumental inventory of the spectacular sky islands, the San Ysidro Mountains (1908). Young Grinnell was greatly interested in the problem of the Colorado, and he attempted to meld Merriam's temperature on plant and animal relations. Grinnell also observed how climatic and physical barriers affected animal distributions. To test his hypotheses he surveyed communities along 150 miles of the Colorado River, from the Riverbend at Yuma to Pilot Knob, California. Using these parameters in one of a dozen experiments, he hoped to evaluate the river as a barrier to animal distribution, the Colorado River as a barrier. The trip took one month, from June 13 to July 13, 1910, and included the collection of more than 3,000 specimens of mammals, birds, reptiles, and fish. Frank Stephens, a professional collector and an experienced Southwest desert naturalist, was his assistant (Huey 1938).

Grinnell's study as well as Sykes' (1937) later explorations of the lower Colorado River Delta area were somewhat unique in that both investigators were able to view the Colorado as a natural river, still going to the sea, still characterized by an enormous amount of cutting and deposition. Grinnell noted that the amount of sediment carried in suspension was always very great, so that the flowing waters were quite opaque at all seasons of the year. Furthermore, the river varied enormously in volume, both throughout the year and between years. Flows varied from four thousand to one hundred thousand cubic feet per second, the river's depth ranging from zero to twelve feet depending on the time and location. Generally, the period of low water was in midwinter; high water occurred from May 15 to July 1. Given the great fluctuations involved, Grinnell found that the river had been a poor barrier and had only a modest effect on species distribution.

By studying the variation in flow, Grinnell was able to observe the areas of sedimentation and erosion, the river possessing distinctive "first" and "second" bottoms. Like other free-flowing rivers in the Western Hemisphere, the Colorado River cut or eroded its western banks and to slow down and deposit silt on its eastern. The sedimentation was the driving force, causing the river to meander across the generally level plains, the constantly shifting channel periodically tearing out rapidly growing trees such as willow and cottonwood that had become established only a few years before. Grinnell also observed that where the river had cut off meanders and formed still-water lagoons, the latter were characterized by high evaporation rates and halophytic deposits.

Grinnell's trip took place during a time when dam building was only beginning to have a noticeable effect on the river. Laguna Dam, completed in 1909, was the first dam on the lower Colorado. While too small to control the river, it nevertheless had a pronounced modifying influence on its flora and fauna. The dam rose to only twelve feet above the river's mean level, and by May 10, 1910, sedimentation had filled it in. The effects of flooding were apparent for thirty miles above the dam. Not only had floodwaters deposited their loads of silt above the dam, they
Deane, Crowell and others who killed the animals near Bill Williams Mountain about 50 miles from Prescott. The quarters are almost as large as beves quarters.

_Arizona Enterprise, January 16, 1878_

Game, however, was not a reliable fare in that its availability and condition depended somewhat on the season; nor was it inexpensive, butchered venison rarely going below eight cents a pound and dressed fowl usually selling for more than twenty cents per pound. And, when available, game was considered a delicacy:

The restaurants occasionally furnish their boarders with excellent fish [Colorado salmon] caught in the Salt River.

_Phoenix Herald, June 26, 1880_

Duck, quail, and doves are abundant down about the river. The editor writes this with one eye on a handsome canvas back and a widgeon which were presented to him this morning for 50 cents.

_Phoenix Herald, November 23, 1883_

A fact not now generally known is that most of the market hunters in Arizona Territory were Indians—at least in those areas having a resident Indian population:

Indian boys do a good business in shooting with bow and arrow, various kinds of birds in the trees around town. They find ready sale for them.

_Phoenix Herald, November 11, 1879_

A good many quail and ducks coming into the market. Indians are the principal suppliers.

_Arizona Sentinel, October 17, 1885_

Papago Indians are bringing in large numbers of antelope and deer from the various mountain ranges. As a rule, the game is in good condition.

_Arizona Citizen, December 6, 1885_

The Indians are trapping large numbers of quail which they sell at very reasonable prices.

_Arizona Sentinel, May 18, 1889_
Accounts of What Was Not to Be
Arizona’s Native Warm-water Fisheries

Notwithstanding Arizona’s almost total lack of perennial lakes and a depauperate native fish fauna, the territory could still boast of an exemplary fishery on the lower Colorado River. Consider Hinton’s (1878) Hand-book to Arizona touting the “River” and its delta:

To the sportsman this country is paradise. The lagoons formed by the flooding waters are filled with fowl. Fish abound in endless variety, from the delicate mullet to the monster jewfish; hook, net and harpoon can here find increasing employment. Immense beds supply excellent clams. Green turtles abound in the gulf and occasionally some of these immense chelions are captured near the mouth of the river.

*Arizona Sentinel, January 26, 1878*
[From Hinton’s Hand-book]

The territory’s other warm-water streams, especially the Salt and Verde rivers, also offered good fishing:

Weighing 21 lbs., a Colorado salmon drags an Apache boy, Gablan Pollero, servant of Jack Swilling, across river [Salt] before being landed.

*Weekly Arizona Miner, November 23, 1872*

There is more or less fishing being done in these days along the waters of the Santa Cruz. By prospecting the various mill ponds above town the boys catch some very nice fish. We saw a string of fish the other day some of which were a foot long. They are a very palatable fish too, though we don’t know their proper name [Gila chub]. . . .

There is said to be some first rate fishing in spots along the river.

*Arizona Weekly Citizen, March 10, 1877*

Fish of good quality are plentiful in the Salt River, and small game in season can be easily accruled within a few miles of Phoenix.

*Salt River Herald, December 28, 1878*
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September 29, 1883

Caught a Colorado River salmon on Verde.

August 16, 1894

Caught bonytails and razorback loop nets, the Indians not only took large strings of fish, of the sucker.

May 22, 1886

A large number of Colorado salmon caught on mountains, 25 to 50 pounds each. They were very good eating. They appeared to be the same kind of fish found in the Tacona school house.

October 1, 1892

Caught a small salmon, it was only natural that a hook would catch one. He took it on hook and line—sometimes with small fish and taking both now, and they take the hook very easily. But they were wild andซาบุก. He had been caught that weighed 19 pounds.

June 19, 1886

And a universal quiet prevailed as the gentleman walked back. He thought his precious finds were not worth the taking gently in order not to break them. He had to break them present! He was astonished to find a silver-logged stick, but the head of the stick was of value. Had there been some hook already prepared for the extraordinary fish? He barely saw a wiggle as if it did not expect to be caught. He was successfully caught, as he was empty except for some water, and lay there unhurt as if it were the natural place for him.

Casting again, another of the same kind came forth and then a third. The longest appeared to be the length of the cabin, as he floated in the water, and that was four feet. He was at least thirty or thirty-six inches with a circumference of fifteen inches. These fish are called Colorado River salmon. The flesh was white and they seemed to us good eating (Dellenbaugh 1909).

Bonytails or humpbacked chubs also supplied sport, not only along the lower Colorado, but also in the lower Gila River:

Trout [bonytails] 20 inches long and numerous other sorts and sizes of fish are being caught in a lagoon near the [Tacona] school house.

Arizona Sentinel, June 19, 1886

The Gila has a bold, strong, warm stream at Antelope mountain, and the camel-back fish are searching for shady side in deep holes along the rocky banks.

Arizona Sentinel, July 31, 1886

Arizona’s fishes were without legal protection, however, and prone to abuse. Damming streams and diverting water through aqueducts or canals to irrigate fields could be especially damaging as the fish would become trapped and either be secured as human or animal food or dumped into fields as fertilizer:

Mr. Cotton caught several hundred very fine fish in a few hours on Saturday last in the Griffin Ditch.

Salt River Herald, May 4, 1878

Another cause of destruction was the use of dynamite or “giant powder” as a fishing technique. As was the case with fish caught in irrigation canals, far more fish were killed than were used or needed and the “catch” included all sizes:

It is to be regretted that Arizona has no laws for the protection of fish in her rivers. Almost daily we see great loads of fish coming into Phoenix from the Salt River that have been caught by the use of giant powder.

No secret is made of the fact whatever. The worst feature of the matter is that not only are fish fit for the market taken, but the fry are also destroyed and large quantities of fish considered too
A miner and his burro with two large “Colorado River salmon” taken on the Salt River near the present site of Roosevelt Lake. These fish were probably secured with the aid of “Giant Powder.” Photo courtesy of W. L. Minckley.

small to trouble with are left to decay. The river has been nicely stocked with excellent fish, but is being rapidly depopulated, and a couple of years more will leave that beautiful stream without fish, if some means are not found to check this wanton and wicked destruction of its finny inhabitants. We say wicked because it is a destruction of food, unnecessary and uncalled for. The time has been when the river would furnish an excellent breakfast of fish for every table now in the valley during the entire fishing season. In short it has contained a great abundance of fish—are there no means by which this can be corrected until the next legislature meets? Have our Board of Supervisors no jurisdiction in the matter?

Phoenix Herald, May 5, 1879

On more than one occasion, it was not only the fish that were harmed:

Two sons of F. M. Fowler of this city, met with a very serious accident last Thursday, while fishing in the Verde above Fort McDowell. They were using giant powder when one of the cartridges exploded which so injured Lincoln as to render amputation of the wrist. Frank is not so badly hurt.

Phoenix Herald, July 19, 1879