

Illinois River Timeline, 1673 to the Present

People and the River

Human actions have caused dramatic changes in the Illinois River valley. In the last 200 years, the Illinois River has been deepened, dammed, contained by levees, polluted, silted-in, dredged-out, and turned into one of the country's busiest shipping lanes. Scientists recognized that abuse of the river could destroy its ability to function as a natural ecosystem. Conservation efforts and new approaches to management have greatly improved river conditions.

[1673]

Father Jacques Marquette and Louis Jolliet traveled up the Illinois River and described its rich resources in their journals. Jolliet proposed building a canal that would connect Lake Michigan with the Illinois and Mississippi rivers. Both Marquette and Jolliet made maps of the river.



Jacques Marquette and Louis Jolliet Meeting
the Illinois Indians Near Starved Rock

Robert A. Thom 1967

(courtesy of Illinois Historic Preservation Agency)



Bassin de la Floride (detail)
map by Jacques Marquette
1673-1674

Nouvelle Decouverte de Plusieurs Nations Dans la Nouvelle
France en l'Annee 1673 et 1674 (detail)
map by Louis Jolliet
1673-1674

[1680]

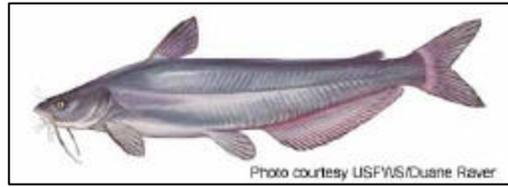
René-Robert Cavelier de La Salle built Fort Crevecoeur on the Illinois River near present day Peoria. La Salle had been granted the rights to establish fur-trading posts among the Illinois Indians. The French used canoes to carry trade goods to the posts and transport hides and furs back to Canada.

[1682]

Henry de Tonty built Fort St. Louis at Starved Rock in the winter of 1682-1683. The French hoped it would become a center of operations for a fur-trade empire involving the Illinois, Miami, Piankashaw, Wea, and Shawnee Indians.

One catfish caught in the Illinois River was "of enormous size, furnishing enough meat for a supper for twenty-two men." -Henry de Tonty

Blue Catfish
Ictalurus furcatus



LaSalle's Colony on the Illinois River
detail from Carte de Louisiane ou de voyages du Sr. De La Salle
Map by Jean Baptiste Louis Franquelin
1684

[1702]

Pierre Delliette, a French fur trader, reported that the Illinois River "has a great abundance of fish." In good weather, an Illinois Indian could spear "as many as sixty of them in a day."

[Caption]

Illinois Indians Visiting New Orleans in 1735
Alexandre de Batz
1735

[1755]

The Peoria tribe of Illinois Indians abandoned its summer villages along the Illinois River, but continued to use the valley for winter camps until 1760.

[1760s]

The Kickapoo and Potawatomi tribes began to establish villages along the Illinois River after the departure of the Illinois Indians.

[1816]

Fur-trading posts along the Illinois River produced 10,000 deer, 300 bear, 10,000 raccoon, 35,000 muskrat, 400 otter, 300 pounds of beaver, 500 cat and fox, and 100 mink.

Major Stephen Long mapped the Illinois River to scout out locations for a military post.

A Map of the Illenois River from its Mouth to Gomo's Village
map by Stephen H. Long
Corps of Engineers
1816

[Caption]

Beaver Skin
Castor canadensis

[1818]

Illinois, with a population of 34,620, became the 21st state in the Union.

[1820s]

55,211 people were living in the state. American settlers farmed land along the edges of the Illinois River valley. River transportation was by canoe, flatboat and keelboat.

[Image of the Illinois settlement map for 1820 with the Illinois River Basin highlighted.

Images of canoe, flatboat and keelboat]

[1836]

Construction began on the Illinois and Michigan Canal.

[Survey map of the canal.]

[1837]

The United States Army Corps of Engineers completed a map showing locations of bars that would pose problems for river navigation.

Sketch of the Illinois River

map by George Smith and Howard Stansbury

United States Army Corps of Engineers

1837

[1840]

By 1840, 190,000 people lived in the Illinois River basin. The Illinois River had become a major transportation corridor. Steamboats and other boats carried goods and people up and down the navigable portions of the river.

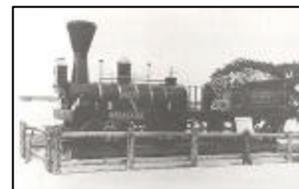


Steamboats used great quantities of firewood to heat their boilers. Bottomland forests were logged to meet this need.

[Images of boats and firewood refueling]

[1842]

The first railroad line in Illinois began operation. It ran between Springfield and the Illinois River town of Meredosia.



[1848]

The Illinois and Michigan Canal was finally completed. It connected the Illinois River with the Great Lakes. Goods could now move over water from New Orleans all the way to Buffalo, New York.

Towns developed along the river and canal where Illinois farmers could take their grain to be inexpensively shipped to distant markets. Chicago became the transportation hub of the Midwest. Its population soared 600% in the 10 years following the opening of the canal.

[Images of the canal, grain elevators and Chicago]

[1850]

500,000 people lived in the Illinois River valley.

[1852]

Sand bars were dredged along the Illinois River to improve river navigation.

[1860]

Illinois had 2,790 miles of railroad in operation. The Illinois and Michigan Canal was becoming obsolete. It was no longer used for passenger traffic. Towns discharged their sewage into the canal. The sewage flowed into the Illinois River.

[1860s]

Farmers were clearing and cultivating floodplain lands.

Commercial fishing was a major source of income in the Illinois River valley.



[1870]

1.6 million people lived in the Illinois River valley.

The United States Army Army Corps of Engineers completed a map of the Illinois River in preparation for the creation of the "Illinois Waterway."

Map of the Illinois River

1870

United States Army Corps of Engineers

[1871]

The Illinois and Michigan Canal was deepened. This action reversed the flow of the sewage-laden Chicago River and introduced pollution into the Illinois River.

[1872]

The first dam on the Illinois River was constructed at the town of Henry. The dam helped maintain a navigable channel for boat traffic.

[1876]

Stephen A. Forbes began his studies of Illinois River fish. Forbes founded the Illinois Laboratory of Natural History in 1877 and became its first director.

[Caption]

Stephen A. Forbes

(1844-1930)

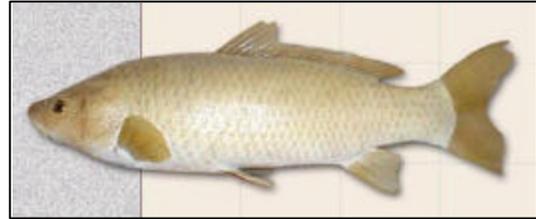
[1877]

A dam was constructed at Copperas Creek.

[1880s]

The common carp, a food fish in Europe, was introduced to the Illinois River. The carp spread quickly in the river.

"From the information I can get as an official of the Illinois Fishermen's Association from all points along the Illinois River, the carp have brought in more money than the catch of all the other fish combined. Long live the carp!"
-Captain John A. Schulte



Common Carp
Cyprinus carpio

[1889]

A dam was constructed at La Grange.

[1890s]

A pearl rush depleted mussel beds on the Illinois River.

[1893]

A dam was constructed at Kampsville.

[1894]

The University of Illinois established the Havana Station, the first inland biology station in the world to study river system biology.

[1899]

Commercial fishermen harvested 89,893 kilograms (241,000 lbs.) of channel catfish.



Channel Catfish
Ictalurus punctatus

[1900]

The commercial fish catch from the river was 3.6 million kilograms (8 million lbs.).

The human population along the river grew to 3.3 million.



The Chicago Sanitary and Ship Canal opened. It allowed larger barges and ships to pass from Lake Michigan into the Illinois River. It also permanently reversed the flow of the Chicago River and sent great amounts of untreated wastewater from

Chicago into the Des Plaines and Illinois rivers.

[1901]

Three market hunters took 3,008 ducks in eight days near Bath. Market hunters shipped waterfowl by rail to Chicago and other cities.

[1903]

A hunting limit of 50 ducks was established.

Drainage and levee districts were being organized to drain floodplain lands for farming and build levees to protect land from floods.

[1904]

The United States Army Corps of Engineers completed detailed maps of the Illinois River floodplain. These maps show the numerous bottomland lakes of the Illinois River system.

[maps]

Map of the Illinois and DesPlaines River
map by J. W. Woermann
United States Army Corps of Engineers
1904

[1905]

The duck-hunting limit was reduced to 35.

[1907]

The duck-hunting limit was reduced to 20.

The first shell-button factory opened on the river. In the early 1900s, the Illinois River was the most productive mussel stream in America. Mussel shells were used to make buttons for clothing in the days before plastics.



Button Factory, 1919
U.S Bur. Fisheries



Musseler's Camp
around 1919
U.S. Bur. fisheries



Barges Loaded with Mussel Shells
around 1919



Display Card of Shell
Buttons and Button Blanks

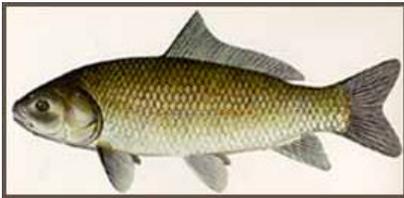


Crowfoot Hooks for Mussel Fishing
made by Leonard Easley
20th Century
(donated by Leonard Easley)

[1908]

More than 2,000 commercial fishermen harvested nearly 9.1 million kilograms (20 million lbs.) of fish. They produced 10% of the nation's catch of freshwater fish from the river between Hennepin and Grafton.

Stephen A. Forbes and Robert E. Richardson published a book on Illinois fish, which included 150 species collected from over 450 locations.



Bigmouth Buffalo
Ictiobus cyprinellus



Bluegill
Lepomis macrochirus

[Caption]

Fish species in the Illinois River basin
from *The Fishes of Illinois*
Stephen A. Forbes and R. E. Richardson
Illinois Natural History Survey
1908

[1909]

One commercial mussel fisherman collected 187 kilograms (about 500 lbs.) of mussels in one day.

[1910]

More than 2,600 mussel boats worked the river between Peru and Grafton.

[1911]

Pollution along the stretch of the river between Morris and Marseilles killed all of the fish and freshwater mussels.

[illustrate on map]

Polluted Stretch of Illinois River

[1912]

Fifteen shell-button factories operated along the river.

[1913]

The Migratory Bird Act made market hunting of waterfowl illegal.

Robert Richardson began his studies of the bottom fauna of the Illinois River and the effects on species of sewage and lake drainage.

[1916]

A Meredosia fur-buyer shipped 34,000 muskrat pelts to London and 100,000 to St. Louis the following year.



[Muskrat Mount}
Muskrat
Ondatra zibethicus

[1918]

Mature bottomland timber was destroyed by high water caused by the diversion of water from Lake Michigan.

[1919]

The State began construction of the Illinois Waterway to promote river navigation.

[1920]

Pollution degraded river habitat from the upper reaches of the Illinois River to Beardstown.

[1920s]

Water-treatment programs were initiated to reduce pollution.

[1921]

Thompson Lake, near Havana, was drained to create farmland.

Illinois River Bottom near Havana, Illinois

Illinois Natural History Survey
William Starrett and Arnold Fritz
1965

[1922]

A major flood in 1922 led to losses of \$5.7 million in the lower Illinois valley.

[1923]

Pollution of the river as far south as Chillicothe killed fish and aquatic plants.

[1926]

A major flood in 1926 resulted in losses of \$8 million in the lower Illinois valley.



Flood in Beardstown, 1926

[1928]

A biologist linked deformities in carp to pollution of the Illinois River.

Drawing of Carp With the Knothead Condition
from David H. Thompson
Illinois Natural History Survey
1928

[1930]

By this time, 41 drainage and levee districts had been established, and about half of the bottomland lakes (81,000 hectares or about 200,000 acres) had been drained.

The U.S. Supreme Court ordered a reduction in the amount of water that could be diverted to the Illinois River from Lake Michigan.

[1930s]

Modern navigation dams were built to maintain a 9-foot deep navigation channel.

Locations of Locks and Dams on the Illinois River

Pool Stages on the Illinois River

[1931]

The commercial fish harvest dropped to 2.5 million kilograms (6.8 million lbs.).

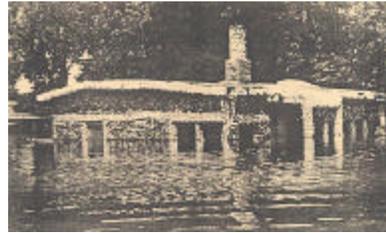
Peoria became the first city to have a sewage treatment plant on the Illinois River.

[1933]

The Illinois & Michigan Canal was closed to navigation.

[1943]

The Illinois River flooded.
The house is sided with freshwater mussel shells.



Flooded House
Liverpool, Illinois

[1944]

Biologist Frank Bellrose recorded 3.6 million mallard ducks in one week during the fall migration.

[1948]

The last shell-button factory on the river closed.

[1950]

The annual fish harvest averaged only 4 pounds per acre, compared with 178 pounds per acre in 1908.

[Connections Symbol]

Fingernailclams and Ducks-What is the connection?

Fingernailclams disappeared from the Illinois River valley in the 1950s, possibly because of high ammonia levels. Populations of canvasback ducks then rapidly declined.



[duck mount and clams]

Canvasback

Aythya valisineria

Fingernailclams

Sphaeriidae

The Connection

Diving ducks, such as the canvasback, eat fingernailclams.

Without this food source, the river no longer attracted large populations of the ducks.

[1960s]

Illinois River mussels were harvested to supply the cultured-pearl industry based in Japan. Small beads of mussel shell are implanted into oysters. The oysters coat the beads with new shell, forming cultured pearls.

[Vial of cultured pearls]

Cultured Pearls



[1966]

A survey of the freshwater mussels of the Illinois River by William Starrett recorded only 23 mussel species, compared with 49 species reported around 1900. The loss of species was attributed to pollution, dam construction, and siltation of the river.

Dredge Used to Sample Mussel Populations
(courtesy Illinois Natural History Survey)
The dredge is suspended overhead.

[1970]

The human population in the Illinois River basin grew to 6.8 million.

[1972]

Passage of the federal Clean Water Act led to major improvements in water quality and mussel and fish habitat. Many wastewater treatment facilities were built in the 1970s.

[1976]

Only two full-time commercial fishermen worked on the Illinois River.

[1986]

Barges transported a record-high 59 million tons of products on the Illinois Waterway.

Federal legislation prohibited the use of lead shot for waterfowl hunting along the Illinois River. Shot on the river bottom was being swallowed by animals, introducing lead into the food chain.



[1988]

The locks at Peoria and La Grange each processed more than 3,000 barge tows.

Barge on the Illinois River
Lucas Bridge, Havana

[1990]

About 373,000 kilograms (1 million lbs.) of carp, catfish, drum, and other commercial fish were taken from the river.

[1990s]

Scientists recorded improvements to fish, mussel, and fingernail clam populations. Reports of deformed fish declined.

White Crappies
Pomoxis annularis



[1991]

The introduced zebra mussel was reported in the Illinois River.



Zebra Mussels
Dreissena polymorpha

[1993]

A major Mississippi River flood caused flooding on the Illinois River.

[illustrate with satellite images comparing normal and flooded river]

Satellite Images of Flooding of the Missouri, Illinois, and Mississippi Rivers Before and After the 1993 Flood

Zebra mussels achieved densities of more than 90,000 animals per square meter in the lower Illinois River, killing fish and native mussels in the area. Then, after the 1993 flood and a very hard winter, the population collapsed by almost 99%.

[1994]

The Illinois River was closed to commercial mussel collection.

Bighead carp were found in the Mississippi and Illinois rivers. Native to China, the fish escaped from ponds in the southeastern United States.

Bighead Carp
Hypophthalmichthys nobilis



[1997]

The Illinois River Valley Partnership completed the Illinois River Integrated Management Plan.

[include copy of 8.5 x 11" report??]

[1999]

The Illinois River Coordinating Council began to coordinate the Illinois River 2020 initiative. The goal of this state and federal effort is to restore the Illinois River and its tributaries.

Better water quality allowed several previously eliminated mussel species, including the mucket, to recolonize the upper Illinois River.



Mucket mussel
Actinonaias ligamentina

[2001]
More than 30,000 barges transported products on the Illinois River.

[2000]
The Emiquon Project began restoration of 3,048 hectares (7,527 acres) in the Illinois River floodplain. As part of this project, Thompson Lake (drained for agriculture in 1921) will become a wetland once again.

Map of the Emiquon area
Nature Conservancy

