



St. Croix Basin Setting and History

The St. Croix Basin has played a prominent role in regional history and is presently an important reservoir of biological diversity and a major recreational destination.

Setting -- Physical and Biological

- Origin at continental divide: Upper St. Croix Lake, near Solon Springs in northwestern Wisconsin, only about 40 km (25 mi) south of Lake Superior. Wetlands at the north end of this lake drain northward (via the Bois Brule River) to Lake Superior and the North Atlantic, and southward (via the St. Croix) to the Mississippi River and the Gulf of Mexico.
- Length: about 240 km (150 mi), from Upper Lake St. Croix to Prescott, WI (1).
- Fall: about 100 m (325 ft) (1). (So Upper St. Croix Lake elev = 1000 ft, and the river drops 325 ft down to Lake St. Croix elev = 675 ft. And from there, it's ~2,000 miles to the Gulf of Mexico.)
- Forms border between Wisconsin and Minnesota south of Danbury, WI.
- Baseflow: about 5,000 cfs at its mouth.
- Watershed area: about 20,000 km² (7,650 mi²) (2).
- Land Use: 47% forest, 37% agriculture, 12% wetlands, 3% water, 1% urban (3).
- Water quality: stained brown from organic acids derived from peatlands.
- Lake St. Croix: lower 37 km (25 mi) of river, impounded naturally by sediments in the Mississippi River valley about 10,000 yr BP.
 - Sediments of Lake St. Croix provide an archive of the watershed history.
- Biodiversity: 250+ species of birds (7 of State special concern); 40 species of mussels (2 federally endangered); 40+ species of reptiles and amphibians; 100+ species of fish; 350+ species of diatoms; and 1,400+ species of plants (4).

Cultural History

- Native Americans occupied valley essentially throughout the Holocene.
 - 9,000 to 3,000 BP -- Archaic Period
 - ca. 3,000 BP and later -- Woodland Period, when mound building took place (5).
 - Probably over 10,000 mounds in Minnesota, and as many or more in Wisconsin; plowing and construction have destroyed most of these during the last 200 years.
 - 1500s -- Chippewa arrive, displaced from the St. Lawrence by the Iroquois
 - 1600-1700s -- Chippewa and Dakota conflicts in the St. Croix basin. During this conflict, Native American hunting and settlement in the area were limited. Consequently, for nearly 200 years fire frequency was reduced, and former prairie was succeeded by oak brush and openings.
- Early European influence (1)
 - 1600s -- French fur traders arrive. The St. Croix River was likely named after a French fur trader.
 - 1763 -- French defeated in French and Indian wars; English fur trade prospered. (All of this conflict driven by the European market for fashionable hats.)

- 1783 -- Land claimed by the newly independent USA
- 1787 -- Northwest Ordinance passed, creating the Northwest Territory and organizing its division for settlement by a uniform land survey.
- 1837 -- Critical treaties with the Chippewa and Dakota, opening the land in the triangle of land between the St. Croix and Mississippi (the St. Croix Delta) to the logging of the great virgin white pine forests.
- Settlement by Euro-American immigrants (*1, except where noted*)
 - 1839 -- First sawmill in Marine
 - 1848 -- Wisconsin statehood
 - 1858 -- Minnesota statehood
 - 1850- ca. 1900 -- Main period of logging of the pine forests in the St. Croix basin
 - 1856-1914 -- St. Croix Boom Co. established boom site north of Stillwater
 - 1890 was peak of logging
 - 1860-90 -- Immigration of Swedes; greatest steamboat traffic on the St. Croix
 - 1878-1900 -- Army Corps established 3' channel to St. Croix Falls
 - 1938 -- Army Corps Lock and Dam 3 (at Red Wing) raised water level in Lake St. Croix by 3-6' and established 9' channel to Stillwater
 - 1940-60 -- Increase in mechanized agriculture and importation of inorganic fertilizers
- Protection of the St. Croix
 - 1968 -- Natural Wild and Scenic Rivers Act passed, establishing the Upper St. Croix River (above Taylors Falls) as a National Scenic Riverway, one of eight rivers included in the original act. Credit goes to Senators Walter Mondale and Gaylord Nelson, along with other notable Congressmen, the Boundary Area Commission, and local advocacy groups such as the St. Croix River Association.
 - 1972 -- Lower St. Croix added to the Riverway
 - Upper Riverway (above Stillwater) is administered by the National Park Service and receives about a million visitors each year (half from Minnesota; a third from Wisconsin; and a sixth from other states and countries). Lower Riverway administered by local government and state agencies.
 - 2008 -- Lake St. Croix declared impaired by eutrophication from excess phosphorus, triggering Total Maximum Daily Load (TMDL) study.
 - 2012 -- TMDL concluded that phosphorus input loads to Lake St. Croix should be reduced by 27%, or about 100 metric tons per year.

References

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- (3) Hanson, P., U.S. Geological Survey, written communication, 1997, as cited by (2).
- (4) Edlund, Mark, St. Croix Watershed Research Station, personal communication
- (5) Fleming, Ed, Science Museum of Minnesota, personal communication

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