Asian carp are invasive species, this species of carp consist of the bighead, silver and black carp. Asian carp are from Southeast Asia, they were brought to southern area of the United States to help aquaculture and wastewater treatment facilities, keep retention ponds clean. In the early 1980’s, flooding helped the Asian Carp escape into the Mississippi River system and spread further north. The population of Asian carp began to multiply, as this occurred the carp migrated into the Missouri and Illinois rivers. Between 1994 and 1997, for instance, commercial catch of bighead carp in the Mississippi River increased from 5.5 tons to 55 tons. (Chick and Pegg 2001) The Mississippi, Missouri, and Illinois rivers are all connected and allow fish to swim freely between them; this gave the Asian carp free range over rivers and lakes in the area. A big problem we face is controlling the carp; the Illinois River is also connected to the Great Lakes by a manmade connection, known as the Chicago Sanitary and Ship Canal. The current range of the Asian Carp is Mississippi, Missouri, Ohio, and Illinois Rivers, but scientist are preparing for Asian Carp to invade the Great Lakes and Lake Erie. “In some areas, the Asian carp now comprise more than 95% of the biomass.” (MICRA 2002)

Bighead and Silver Carp are a major threat to the United States; they can grow to a massive size, they are very successful at reproducing offspring, and are able to consume lots of food all year long to survive. The average size of Asian Carp are around 30-40 pounds, it is capable of eating 5-20% of its body weight each day. Asian Carp are known for damaging habitats and disrupting food webs. Asian Carp feed on vegetation, plankton, aquatic insects, and fish larvae this diet enables the carp to grow and reproduce fast. This invasive species is in competition with native fish and mussel species, and so far the Asian Carp are succeeding in the race for survival. Asian carp can be hazardous to boaters and water sport enthusiasts. When startled the silver carp can jump six to ten feet out of the water and into moving. This is a problem for boaters; Carps can cause property damage and injury to boaters, when startled by noise of boat motor. Taking a hit from a jumping carp is like “being hit with a bowling ball”, with Asian Carp around water skiing, jet skiing, fishing, and recreation can become very risky in areas with large numbers of silver carp. “Asian carp have left a trail of destruction in the Mississippi River system that has harmed the ecosystem, the economy, property, and boaters.” (Chick and Pegg 2001)

Some methods used to stop and control Asian Carp movement are, to lock or close free flow of water, or commercial harvesting (corral/capture/kill), and or an electric dispersal barrier like an electrical force field, constructed across the Chicago Sanitary and Ship Canal. This technology is being used to stop Asian Carp from entering the Great Lakes, the barrier creates a strong electrical field across the canal to deter or stop the carp from moving upriver. However, young Asian carp can be misidentified for baitfish by fishers, but some bait fish when unused are released into different bodies of water. The barrier cannot prevent people from moving carp, but laws and restrictions can be placed on carp trafficking. In Pennsylvania it is unlawful to possess, sell, or purchase live silver, bighead or black carp (Asian Carp). It is also unlawful to introduce or import these species into Pennsylvania waters. People should also never release plants, fish, or animals into new places unless they originated from that place. If the Asian Carp enter the Great Lakes, then the Lake Sturgeon will go extinct, the population of the Lake Sturgeon is already less than 1% of its original number.

It costs Illinois about $2 million per year in targeted corral and kills measures, if the commercial harvesting technique to control Asian Carp was to be presently active. An Asian Carp establishment in major lakes and rivers is a thing we must avoid. The Great Lakes states can suffer over approximately $7 billion, should the Asian Carp species establish a population in the Great Lakes. Not only will money be lost, but the great lake ecosystem would be destroyed by these invasive creatures. The Illinois Chamber of Commerce has estimated Chicago’s economic losses to be equivalent to $4.7 billion over the next 20 years, if free flow of the Lake of Michigan was closed. The USACOE 2012 budget, requests $10.6 million for the maintenance and operation of the fish dispersal barrier (USACOE 2012). Not only are operating the barrier expensive, but money and revenue can be lost from the unavailability of crossing the barrier for commercial and recreational boaters.

Asian Carp species are voracious eaters; they have a life cycle of 20 or more years, and can quickly strip the food sources from the environment. An Asian Carp established population can crowd out, native aquatic species or like in The Great Lake states hasten the extinction of the Lake Sturgeon fish. An Asian Carp population may double or triple if well established, these species of carp get well-adjusted quickly and native fish and aquatic species become out competed quickly.

Asian Carp species hurt biodiversity in aquatic systems as they out compete and basically consume lots of vegetation. Asian Carp species are r-selected species which reproduce like crazy; their offspring has a survival rate of 70 to 80%. In North America the Asian Carp species have no predators, competition is low, and the habitats which they have invaded can’t support them and native organisms. The range of tolerance for Asian Carp species is wide, since they are just about everywhere.

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