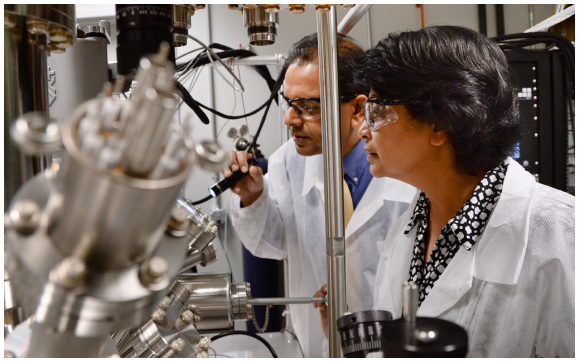
Possible source: accidental release by scientists.

1



Possible source: Ballast water from foreign ports

2

Possible source: improper disposal by teachers. Where to dispose of classroom organisms?

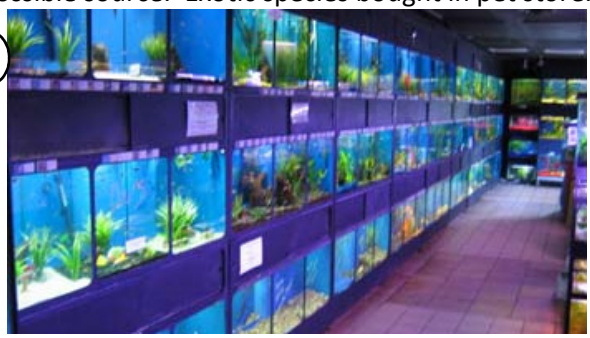
3

Possible source: Inadequately cleaned boats & trailers

4

Possible source: Exotic species bought in pet store.

5



Possible source: Recreational fishing enthusiasts wanting access to them in the USA

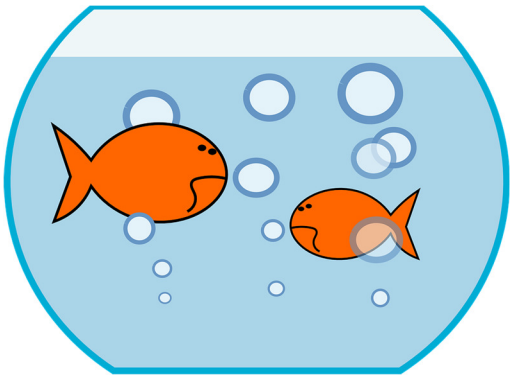
6

Possible source: Escape from aquaculture ponds

7

Possible source: improper disposal of pet fish

8



Description:
Comes from: China & Korea

6

Introduced by: recreational or aquaculture enthusiasts

Invaded: Maryland, Ohio

Impact: voracious predators; carries diseases

Special characteristics: air-breathing, can survive out of water several days.

Description:
Comes from: lower Mississippi and Gulf Coast

1

Introduced by: pet enthusiasts; scientists who use it in scientific research; aquaculture

Invaded:

Impact: compete with native crayfish

Special characteristics: scientists studied how the nervous system works in this organism. Just like ours!

Description:
Comes from: Brazil

3

Introduced by: teachers, teaching photosynthesis; aquarium decoration.
Spreads by: fragments breaking off

Invaded:

Impact: thick growth of thick mats chokes out native plants.
Special characteristics: native species can be used instead for teaching

Description:
Comes from: Asia

8

Introduced by: ornamental fish enthusiasts

Invaded: every US state except Alaska

Impact: so prolific they can crowd out native fish from their native habitat

Special characteristics: spawns hundreds of thousands of eggs per year

Description:
Comes from: China

7

Introduced by: aquaculture in the Mississippi watershed

Invaded: the Mississippi River, Illinois River, now threatening to invade the Great Lakes near Chicago

Impact: filters algae, competing with native fish. Jumps when disturbed and has been known to injure boaters

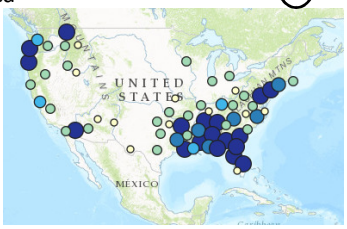
Special characteristics: an electric barrier was built on the Chicago sanitary and shipping canal to keep them from reaching Lake Michigan.

Description:
Comes from: South America

4

Introduced by:
ornamental plant enthusiasts

Invaded:



Spreads rapidly by small pieces breaking off.
Impact: Dense infestations can rapidly overtake small ponds, impeding water flow resulting in increased floods.

Possible source: Inadequately cleaned boats & trailers

Description:
Comes from: southeastern portion of sub-Saharan Africa

5

Introduced by: sold as pets; also used in labs for scientific studies
Invaded: populations found in California, Colorado, Virginia, Massachusetts, and a few other states
Impact: carries diseases; eat the young of frogs and other native animals
Special characteristics: infectious fungus carried by these animals may have reduced amphibians worldwide.

Description
Comes from: southeast Russia, Ukraine

2

Introduced by: ballast transport

Invaded: Lake St. Clair and Lake Erie first. Now found in all Great Lakes and in the Mississippi watershed. Also spread to Lake Mead and elsewhere in western United States

Impact: filters plankton out of the water; settles in water intakes of power plants. They have to be cleaned out frequently

Special characteristics: Has changed the chemistry of the Great Lakes

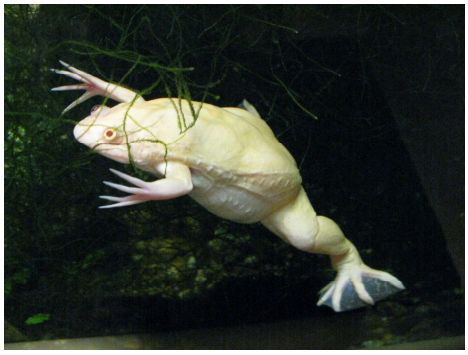
1 Red swamp crayfish

2 Invasive mussels (zebra mussels, shown here)

3 Brazilian elodea

4 Parrot feather watermilfoil

5 African clawed frog



6 Northern snakehead

Asian carps (silver carp shown here)

7

8 Goldfish