many years of quality fishing is the goal. Bluegills may be put in this category (see page 25 and also chapter 7 for more detailed discussion). These and others may enter ponds during floods or through pond outlets from nearby waters.

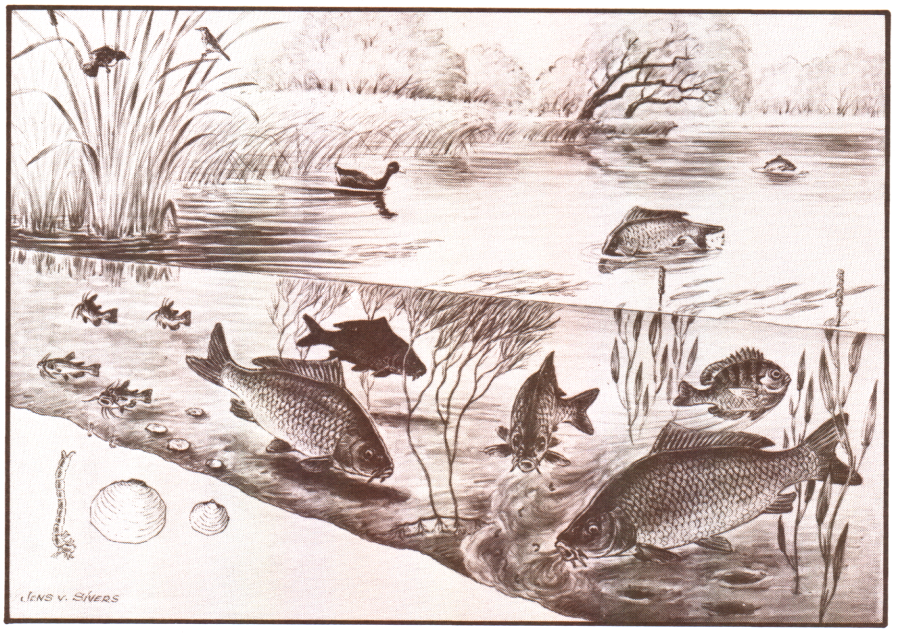
Trespassers, such as well-meaning neighborhood kids, are notoriously fond of stocking fish from nearby ditches, streams and lakes. Pond owners should learn to readily identify the following fish and try to keep them out of their ponds for the following reasons:

Crappie *(Pomoxis* spp.), **Yellow Perch** *(Perca flavescens)*, **Green Sunfish** *(Lepomis cyanellus)*, **and Bullheads** (*Ictalurus melas, natalis* and *nebulosus*)

These fish, like bluegills, tend to overpopulate the pond and become stunted. They compete with and prey upon the eggs of other gamefish, particularly bass. These fishes should only be stocked in larger ponds if largemouth bass greater than 12 to 14 inches are present and protected by catch and release fishing. Additional controls on their numbers may also be required to prevent overpopulation and stunting, such as destruction of nests and trapping and removing young.

Carp *(Cyprinus carpio),* **and Suckers** (*Catostomus spp.* and others)

These also compete with gamefish for food and prey on their eggs. They are bottom feeders which roil the water, hampering sight-feeding by gamefish. Common carp are sometimes used to help control nuisance aquatic plants because they uproot plants and the increased turbidity reduces light penetration for plant growth.



Some of the fishes usually best kept out of ponds.

Northern Pike, *(Esox lucius),* **Walleye** *(Stizostedion vitreum vitreum),* **and Muskellunge** *(Esox masquinongy)*

Although survival is certain in most ponds, these "coolwater" fishes won't reproduce and are very expensive to purchase. They often prey heavily on bass and catfish, but not effectively enough on stunted panfish populations to remedy such problems.

Exotics

Many species of fish exist in the world which are not native to Michigan and most would not survive in the wild here. However, certain species have the potential not only to survive here, but to reproduce. When this occurs, they become a nuisance and compete unfavorably with native fishes. The common carp is the best example of an introduced exotic which has had adverse effects on some native fish populations. The grass carp (white amur), Japanese weatherfish, ide, rudd, bitterling and tench are other exotics which could become established in Michigan waters and compete with native fish for food and living space. For this reason, these species may not be imported into Michigan as eggs, larvae, juveniles, or adults.