

Figure 1. Live - Release box.

size desired. The vertical sides of the box should be at least 8 inches high to prevent fish from jumping out. Legs can be installed to elevate the box to a height comfortable for the person judging the fish. The box can be made of a variety of materials, but the bottom surface should be smooth and level with the outlet to minimize abrasion or scale loss to the fish. The bottom surface of the box should be kept wet; do not drill drain holes. All fish should be handled with wet hands.

**Fish Weighing** — A variety of suitably accurate scales are available for weighing fish. Use a direct reading scale; they provide a weight reading more quickly than a balance. "Instantaneous weight" scales are ideal for weighing live fish. These scales, however, are expensive and require a 110 V AC power supply. Weighing fish in mesh bags is quicker and less injurious to the fish, because they move less in the mesh bag than in a basket or bucket. Simultaneously using several mesh bags can expedite a weigh-in. The bags can be adjusted to equal weight by first soaking the bags in water and then sewing an appropriate weight of stainless steel washers to each bag.

**Holding Fish** — In general, it is better to return fish to the lake or river immediately after weighing. When this is not desired, or if good water for releasing fish is not close by, the fish should be held in a large volume of clean, well aerated, cool water. Use water from the lake or river where the fish were caught. Commercially-available fish transport tanks make good holding tanks. Custom holding tanks can be made to specifications by aluminum or fiberglass fabricators.

Tanks can be made of wood. The following factors should be considered in the design or selection of a holding tank:

1. the tank should have smooth interior walls with no obstructions to trap or injure the fish;
2. the tank should be able to hold one gallon of water per pound of fish;
3. the tank should have easily operated hatches to prevent fish from jumping out of the tank and allow quick opening and closing for introduction and removal of fish;
4. the tank should have a completely removable top with several small, hinged hatches;
5. the tank should not be more than 4 feet high and water depth should be less than 3 1/2 feet; and
6. the tank should have a 1 1/2 inch or larger drain (1/2 inch mesh screen attached to the inner tank wall will prevent fish from becoming trapped in the drain).

Adequate aeration of holding tank water is essential. Aeration is most efficiently and economically accomplished by a compressed oxygen-diffuser system. Diffusers can be made of porous plastic pipe and PVC pipe. The porous plastic pipe can be cemented to standard, 1-inch PVC pipe and fittings with PVC cement to make a diffuser manifold. For a large holding tank, construct two manifolds to fit length-wise in the tank (figure 2). Install these manifolds parallel to each other. The diffuser

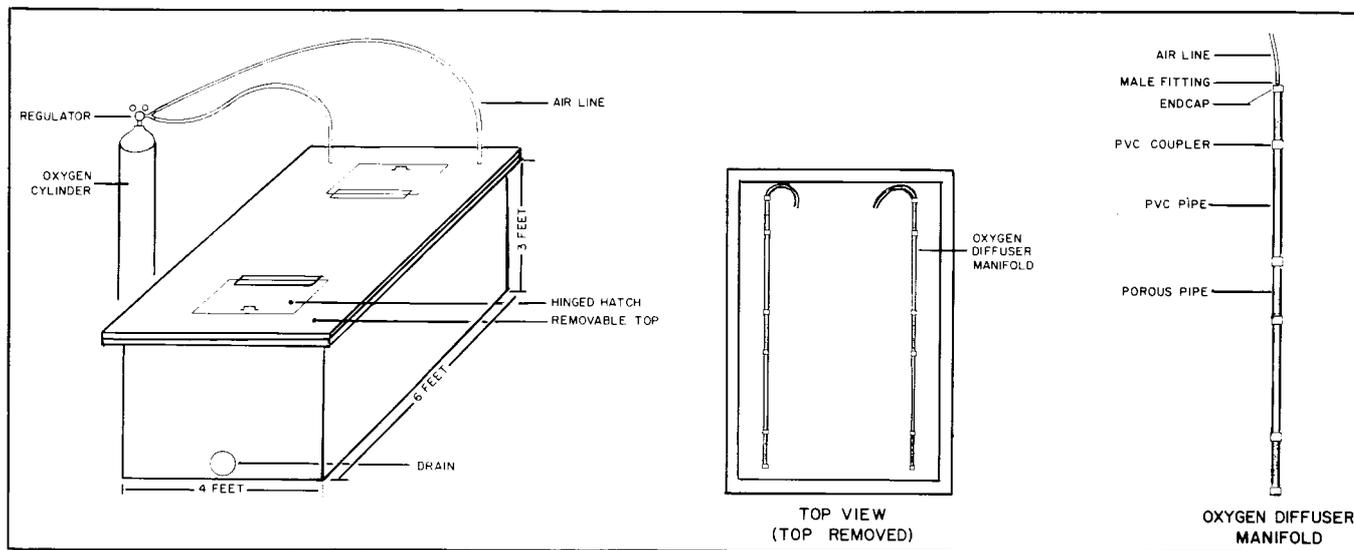


Figure 2. Fish holding tank and oxygen diffuser manifold.