



Triploid Grass Carp Permit Information

Texas Parks and Wildlife Department – Inland Fisheries Division

Enclosed is the Triploid Grass Carp information sheet and permit application. We ask that you review this information prior to submitting application. Plant identification is the first step to managing nuisance vegetation. *Aquatic Vegetation Management in Texas: A Guidance Document* authored by Earl W. Chilton II, Ph.D. can be found at:

https://tpwd.texas.gov/publications/pwdpubs/media/pwd_pl_t3200_1066.pdf

Triploid grass carp must be purchased from a Texas aquaculture facility with a current Exotic Species Permit. A listing of aquaculture facilities with a current Exotic Species Permit will be included with the permit. Aquaculture facilities or their agents may deliver or buyers may transport triploid grass carp. The aquaculture facility is responsible for completing the bottom portion of the *Triploid Grass Carp Permit* and supplying the buyer with an *Exotic Species Transport Invoice*. This *Exotic Species Transport Invoice* must accompany any triploid grass carp being shipped or transported. Buyer must retain the *Triploid Grass Carp Permit* and the *Exotic Species Transport Invoice* for as long as the triploid grass carp are in the water body.

Grass carp travel with flowing water and will swim out of your water body in the event of an overflow. To ensure the grass carp stay in your water body, a barrier across the spillway or overflow pipe is recommended. If fish escaping from your water body can possibly reach public water, an escapement barrier is required. This barrier (if required) must meet minimum standards as described in the *Texas Parks and Wildlife Department Triploid Grass Carp Information Sheet*.

TPWD Inland Fisheries biologists recommend no more than 10 fish per acre. Formulas for determining the area of ponds and lakes are provided on the application. A general guideline is five carp per acre if less than 50% vegetation coverage and ten carp per acre if greater than 50% vegetation coverage.

To expedite the permitting process, please make sure contact information is complete and correct. The mailing address and daytime phone number are critical; an email address is helpful. The physical address or GPS coordinates for the water body along with the identification of the county where the pond or lake is located is required. Please include a map or detailed directions to the water body if a physical address is not available.

After completing your application, mail it with supporting documents and a check or money order payable to Texas Parks and Wildlife for the sum of \$16 plus \$2 per fish requested. In the event of permit denial, the \$16 application fee would not be refunded; however, the \$2 per fish charge would be refunded. *The \$2.00 per fish charge does not constitute purchase of the grass carp. If the permit is approved, you must make separate arrangements to purchase the fish from an approved vendor.*

Application processing can take up to four weeks from the date the completed application is received. Incomplete applications will not be processed. If the permit application is incomplete the permit coordinator will make a courtesy telephone call or email to the applicant requesting the information that is missing.

If you have any questions or need further assistance, please call (800) 792-1112 (when you hear the recording select 4 then 4) or dial direct (512) 389-4444.



Triploid Grass Carp Information Sheet

Texas Parks and Wildlife Department - Inland Fisheries Division

Introduction

The grass carp, also known as white amur, is a vegetarian fish native to the Amur River in Asia. The U. S. Fish and Wildlife Service introduced grass carp into the United States in 1963 for experimental purposes. Because this fish feeds on aquatic plants, it can be an effective biological tool for control of nuisance vegetation. Since 1992, Texas has allowed stocking of triploid grass carp, a sterile form of the species, with a permit from the Texas Parks and Wildlife Department (TPWD).

Facts

Triploid grass carp:

- offer a biological alternative for aquatic plant control.
- are sterile and will not reproduce.
- are only distantly related to the undesirable European carp, and share few of its habits.
- live for at least 10 years and probably longer in Texas waters.
- grow rapidly and may exceed 60 pounds.
- feed only on plants, not on fish eggs or young fishes.
- feed from the top of the plant downward; however, where all submersed vegetation has been eliminated, the water can become turbid, as hungry fish eat the organic material out of the sediments.
- have definite food preferences. Plants like water lilies, filamentous algae (pond scum or moss), muskgrass and Eurasian milfoil are not preferred. Bushy and American pondweeds and hydrilla are preferred foods.
- **are not effective for control of bulrush, filamentous algae (pond scum or moss), water primrose, coontail, Eurasian milfoil, or cattails.**
- go dormant during the winter and resume intensive feeding when water temperatures reach 68° F.
- are difficult to catch with conventional fishing methods.

Stocking Considerations

- Triploid grass carp are inexpensive compared to most other aquatic vegetation control methods.
- Depending on plant types, plant density, and stocking rate, it may take several years to achieve control using triploid grass carp. Restocking, generally every 5 to 7 years, is needed for maximum effectiveness.
- The types of plants triploid grass carp prefer may also be important for fish habitat and waterfowl food. Aquatic vegetation can be important in maintaining good fish communities and providing food for other wildlife species.
- If the water body is overstocked, all submersed aquatic plants may be eliminated. Removing excess fish can be difficult.
- If insufficient numbers of triploid grass carp are stocked, less-favored plants may become overabundant.
- Stocking triploid grass carp may result in alga blooms and reduced water clarity.

Emigration Barrier

Triploid grass carp readily seek flowing water and often escape before controlling nuisance aquatic plants. Escapement of the stocked fish can reduce or eliminate their potential for plant control within targeted areas, and can threaten beneficial plants outside of targeted areas. **Impoundments on permanently flowing**

creeks, or those that overflow frequently, should not be stocked with triploid grass carp unless they can be effectively screened. Therefore, emigration barriers are required for many, and recommended for most, water bodies being stocked with triploid grass carp. In cases where emigration cannot be prevented, chemical or mechanical control of aquatic plants is recommended.

With few exceptions, the best screening device for nearly all outlet types is the horizontal parallel steel-bar design. The orientation of the bars allows unrestricted passage of small debris, thereby minimizing maintenance, clogging, and flooding concerns. Bar thickness of 1/4- to 1/2- inch is preferred. Round bar stock will facilitate debris passage. For a spillway barrier (Figure 1), the horizontal bars are attached to vertical support posts (minimum 3/4-inch diameter) spaced 4 feet apart. Horizontal bars should be spaced 2 inches apart. The barrier should span the entire spillway. Since triploid grass carp are excellent jumpers, barrier height should extend 2 feet above the normal high water level.

For capping a drainage pipe (Figure 2), a similar bar design should be used. Extending the bars 4-5 feet above the overflow pipe allows water to rise over debris and begin flowing again should the screen become clogged.

Welded wire and chicken wire are not effective as barrier materials. These types of materials readily clog with debris and the force of even a small amount of water can destroy the barrier. Clogged barriers may threaten the integrity of dams.

Figure 1 - Spillway Barrier.

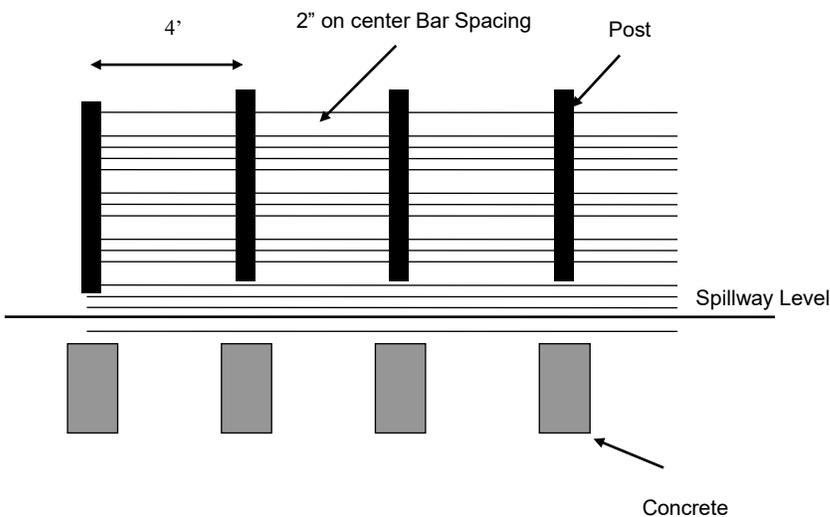
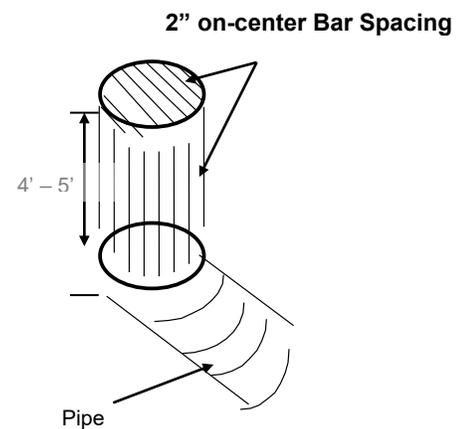


Figure 2 - Drainage Pipe Cap.



Permits

Before stocking, water body owners, their agents, or controlling authorities must obtain a Triploid Grass Carp Permit from the Inland Fisheries Division of the TPWD. Permit applications and additional information on triploid grass carp can be obtained by calling (800) 792-1112 (when you hear the recording select 4 then 4) or dial direct (512) 389-4444, or via the TPWD Internet web site at <https://tpwd.texas.gov/publications/fishboat/forms/exotic-permits.phtml>. Once the application has been received, it will be reviewed by a District Fisheries Management Biologist. In some cases, a TPWD staff member will contact you or make an on-site visit to ensure the fish will not escape into public waters. Allow 4-5 weeks for the permit application process. **Stocking of triploid grass carp is not allowed in some environmentally sensitive areas where threatened, endangered, or unique species occur.**

After you receive an approved permit, triploid grass carp **must** be purchased from a commercial fish farmer who holds an Exotic Species Permit authorizing possession of triploid grass carp. A list of permitted fish farmers will be provided with your approved permit.

Many have asked, "Since triploid grass carp are sterile, why is a permit required? Why be concerned with escapement into public water?" These fish are permitted so that TPWD can keep track of the location and number of grass carp in the environment, especially near sensitive areas. We are concerned about escapement because, although triploid grass carp can't reproduce, they can live for years, potentially migrate to sensitive areas, and consume a great deal of vegetation. Texas' outstanding freshwater fisheries are heavily dependent on natural aquatic vegetation. Aquatic plants provide the following benefits:

- cover for young fish to hide from predators
- food and cover for many insects that fish eat
- protection from currents and silt for fish eggs in nests
- structure that sportfish use for shade and camouflage, which in turn helps anglers locate them.

Ensuring that triploid grass carp remain where they are stocked makes economic sense for the water body owner and helps protect beneficial aquatic vegetation in our public waters.

Stocking Facts

- Triploid grass carp should be 10-12 inches long when stocked. Smaller carp are likely to be eaten by other fish.
- To enhance effectiveness of triploid grass carp, overabundant vegetation should first be reduced by winter die-off, herbicide treatment, water-level drawdown to promote grazing on re-growth. Early spring is a good time to stock.
- The recommended stocking rate for triploid grass carp is **five per acre if the water body has 50% or less plant coverage, and 10 per acre if plant coverage is greater than 50%**. If warranted, the stocking rate can be increased with consent of your local TPWD fisheries management biologist.
- If you need additional fish, it will be necessary to apply for a **new** permit. A request can be made by calling (800) 792-1112 (when you hear the recording select 4 then 4) or dial direct (512) 389-4444.

Additional Grass Carp and Aquatic Plant Information Via the Internet:

For more information about the Texas Parks and Wildlife Department Triploid Grass Carp Program, grass carp biology, or aquatic plants, visit the Texas Parks and Wildlife Department web page at https://tpwd.texas.gov/landwater/water/enviroconcerns/nuisance_plants/. Links to other Internet resources are also available there.



Counties of Special Concern for Triploid Grass Carp

Texas Parks and Wildlife Department – Inland Fisheries Division

A wide variety of habitat types exist in the state of Texas. Many species within the state depend heavily (or exclusively) on fragile habitat, which is susceptible to alteration either by humans or by the introduction of non-native species. In order to protect Texas' valuable natural resources, introductions in areas harboring threatened, endangered and unique species, as well as coastal areas with irreplaceable marsh habitat could be affected. As a result, applications for triploid grass carp permits received from the following counties will be given special consideration and there is an increased risk of permit denial:

Aransas	Gonzales	Nueces
Brazoria	Harris	Orange
Brewster	Hays	Pecos
Caldwell	Jackson	Presidio
Calhoun	Jeff Davis	Reeves
Cameron	Jefferson	Refugio
Chambers	Kennedy	San Patricio
Comal	Kleberg	Terrell
Crane	Loving	Val Verde
Crockett	Matagorda	Victoria
Culberson	Menard	Ward
Galveston		Willacy