

TOURNAMENT RECOMMENDATIONS, CONTINUED

- Add frozen containers of water to live-wells if water temperatures exceed 85°F.
CAUTION – Avoid lowering water temperature more than 10°F in 30 minutes.

Weigh-in Procedures:

- Allow early “weigh-ins” to increase fish survival.
- Use “fish-handling” bags to transport fish to the weigh-in station and to the release tank.
- Provide aerated and oxygenated temporary holding tanks for fish waiting to be weighed and measured.
- Use the recommended lippling tool or wet latex gloves while handling fish.

Release Procedures:

- When releasing fish, acclimate holding tank or live-well water to the approximate temperature of water at release site. This is important to avoid the stress induced by temperature shock, especially when releasing from colder to warmer waters.
- Revive fish by supporting them in the water and gently moving them back and forth allowing water to pass over their gills.
- Release fish when they are able to swim away on their own.

INCREASING SURVIVAL

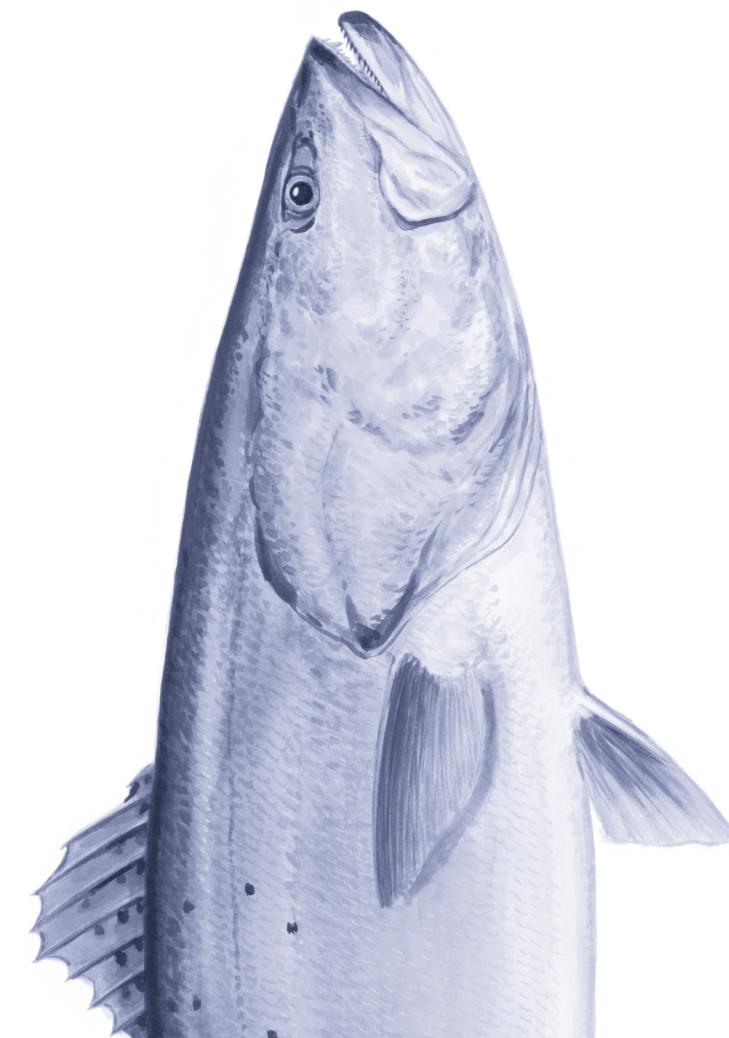
The projected increases in fishing pressure on spotted seatrout populations of Texas place a greater emphasis in the role anglers will play in protecting this valuable resource. The overall survival of spotted seatrout caught and released can be improved by following some basic handling techniques described here.

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SPOTTED SEATROUT CATCH AND RELEASE HANDLING TECHNIQUES



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SPOTTED SEATROUT

The spotted seatrout (*Cynoscion nebulosus*) is a highly sought-after marine sportfish in Texas. The Texas Parks and Wildlife Department (TPWD) manages the fishery with regulations that include size and bag limits. A key element in the regulations is the post-capture survival of released fish.

Fish experience a combination of stressors during the fight, landing/handling, and release process. Post-capture survival of fish improves by minimizing the amount of stress. Listed below are some types of stress fish can experience.

- Exercise – exhaustive swimming
- Handling – capture and struggle
- Hypoxia – oxygen deprivation when removed from water
- Behavior – confinement and crowding (e.g., live-well and tournaments)
- Temperature – change in water temperature
- Salinity – change in salinity
- Toxicity – exposure to ammonia

Proper techniques and care should be practiced to minimize these stresses to ensure releasing a healthy fish with a greater chance of survival. The following are recommendations for spotted seatrout catch and release handling techniques.

SPORTFISHING RECOMMENDATIONS

Handling Techniques:

- Land the fish quickly.
- When possible, avoid using a landing net especially those with large mesh. It is best to bring the fish within hand reach and retrieve it from the water using a wet hand. This reduces damage to the protective mucous coating and scales which protect the fish from disease and parasites.
- Minimize the time the fish is out of the water.
- With larger fish, provide support of the abdomen, with a wet hand.
- Use needle nose pliers or similar devices to quickly remove hooks. If fish is deep-hooked, cut the line near the mouth to avoid injury to vital organs and other sensitive areas of the fish.
- Use a lip-clip tool when weighing and photographing fish.
- Measure fish on a smooth wet surface to protect the mucous coating and scales.
- Revive fish by supporting them in the water and gently moving them back and forth allowing water to pass over their gills. Release fish when they are able to swim away on their own.



TOURNAMENT RECOMMENDATIONS

Time of Year:

Avoid scheduling tournament dates during "hot" months (June - Sept.). Spotted seatrout mortality increases substantially when water temperatures are above 85°F .

Handling Techniques:

- Follow the handling techniques recommendations.
- Distribute fish evenly between live-wells and avoid overcrowding.
- Place fish in boat's rear live-wells to reduce injuries incurred during transportation (back of boat is less bouncy than front).

Aeration and Water Management:

- Fill holding tanks with water taken near the capture site. Provide 1.5-2.0 gallons of water per pound of fish.
- Maintain adequate live-well or other type of holding tank aeration via oxygen or water recirculation systems. Oxygen systems provide the most efficient oxygenation, however care must be taken when using these because too much oxygen can cause mortality.
- Exchange water at a rate of 10% per hour with constant aeration.
- Monitor oxygen (8-10 ppm), salinity (15-35 ppt) and water temperature (below 85°F) when meters are available.