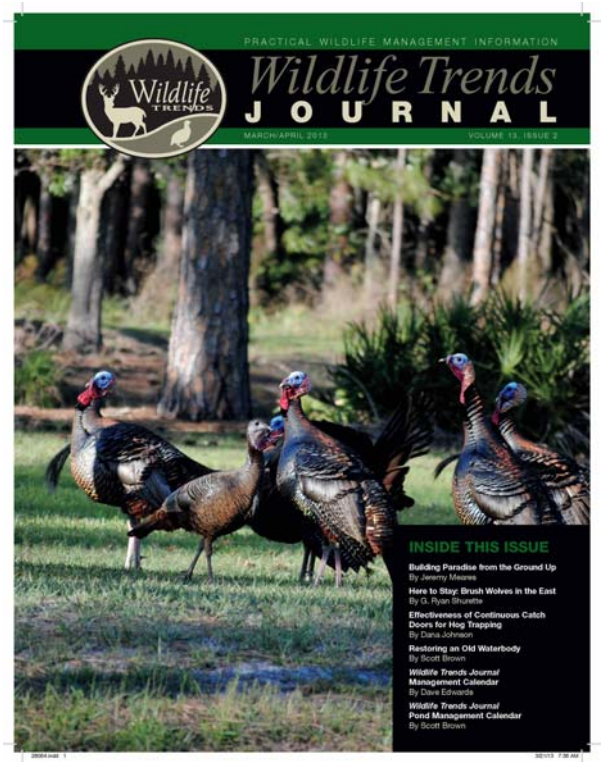
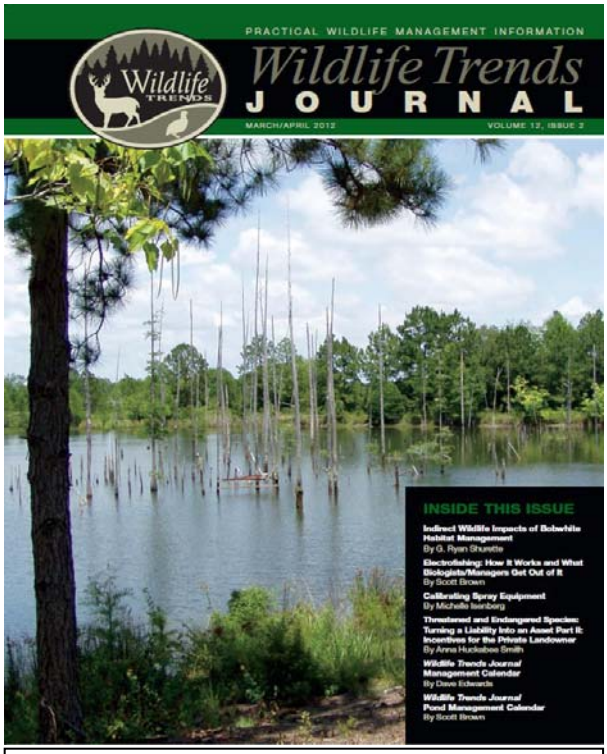
Quarterly News Letter
Summer 2013

It's been too long since we got out a Southern Sportsman Aquatics & Land Management news letter. We have been very busy and seem to be getting busier. That's a great thing! I apologize for not being more adamant to get these out, as several of you have been asking about when the next one was coming. We have several things we wanted to make you aware of that we have been or are getting involved in.

At the beginning of 2012 Scott became a regular contributing author and photographer for Wildlife Trends Journal. Thank goodness for spell check. The award winning publication comes out six times per year and targets landowners, managers and professionals seeking current and proven techniques to manage fish and wildlife. Scott writes an article in each edition from current or past experiences related to fish management and/or research he has been involved with. In four issues per year Scott also provides a Pond Management Calendar that lays out management techniques that should be done during that particular season. Owner/Publisher/Editor Andy Whitaker has published the magazine for over a decade and it continues to be used by both professionals and "do it yourself" fish and wildlife managers throughout the country. Stay tuned, because this fall we will be offering a special yearly subscription price for Southern Sportsman Aquatics & Land Management Clients.



This photo was taken near St. Cloud, Florida at the Kirchman Foundation Property.



This photo was taken near Jacksonville, Georgia at Captain Kevin Faver's Property.

We also wanted to make you aware that we are now seeking clients in North and South Carolina. Scott is in the process of moving with his wife Kim near Winston-Salem, NC. This relocation will put Scott closer to most of the Southern Sportsman Aquatics & Land Management clients and reduce travel time by 50% or more. The change will only affect one ore two clients where we manage your aquatics and/or uplands.

Southern Sportsman Aquatics and Land Management is now offering to any current client a Finders' Fee when a new lake evaluation contract is signed. We will pay the referring client 10% of the initial contract for work or provide a free quarterly site visit to collect water chemistry data and a meeting with the landowner and/or property manager.

We expanded our fleet this year and added a new electrofishing/work boat. The larger boat is capable of handling big water and possesses a 9.0 GPP Smith Root Electrofisher capable of shocking in high conductive water found along the Atlantic and Gulf Coasts. We may be the only private company that possesses one and looking forward to assisting private, State and Federal agencies with aquatic environmental monitoring along the coasts. We will have to brush up on our already broad base knowledge of saltwater species identification.

Pond Management

As always, we have included some lake management information in this edition. The following write up is on Dissolved Oxygen (DO as we refer to it) and how it relates to fisheries management by Owner Steve Lopez. There are many water quality parameters we monitor including pH, conductivity, temperature, turbidity, phosphates, ammonia, alkalinity, carbon dioxide, and nitrites which affect fisheries and should be monitored, but we will focus on DO in this segment.

The most important parameter which has a direct effect on life in a lake and is most often the cause of fish kills is dissolved oxygen (DO). Represented as mg/l (milligrams per liter), DO is the amount of O_2 available for plants and animals. Although each species has different tolerances for DO, measurements can be categorized in the following general ranges:

0-2 mg/L: not enough oxygen to support life.
2-4 mg/L: only a few fish and other aquatic life can survive.
4-7 mg/L: good for many aquatic animals
7-11 mg/L: very good

There are three sources of oxygen in water; 1) direct diffusion from the atmosphere at the surface of a lake; 2) wind and wave action; and 3) photosynthesis. Of these, photosynthesis by aquatic plants and phytoplankton is the most important. Levels of dissolved oxygen vary depending on factors including water temperature, time of day, season, and water depth. Water at higher temperatures will have less dissolved oxygen. Dissolved oxygen reaches its peak late in the day. At night, it decreases as photosynthesis has stopped and oxygen consuming processes such as respiration and oxidation continue, until dawn.

As you can see DO levels are highly variable but there are a few management techniques to improve and/or help maintaining DO at acceptable levels in waterbodies with DO issues. A fountain can increase the direct diffusion of air and water but is mainly for aesthetics. An aeration system is a better choice to help maintain DO because it has multiple

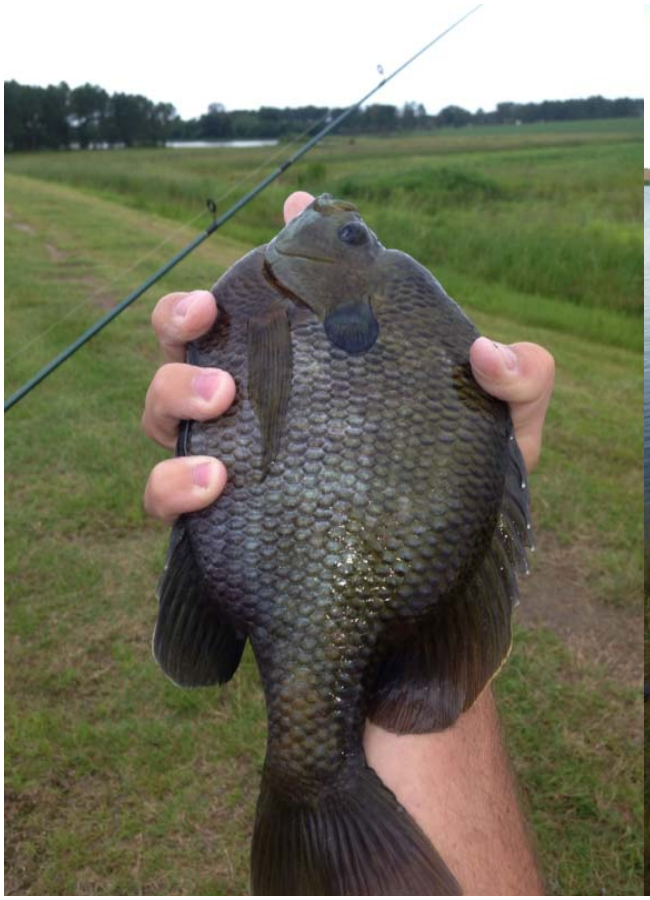
benefits. Not only diffusing O_2 into the water column and increasing surface wave action, but also and most importantly helping to eliminate stratification and gases such as carbon dioxide and hydrogen sulfide from the water at the bottom of the lake. Stratification occurs when these gases build up on the lake bottom, usually from decaying organic material collected at the bottom over time. As this these gases increase a larger and larger portion of the water column becomes unusable for fish from lack of DO. Not only will this confine fish to the top of the water column eliminating a thermal refuge during the heat of summer, but also create a significant risk of fish kills during weather events which can cause the lake to "Roll Over". A "Roll Over" is just that, water from the bottom comes to the surface as surface water is pushed to the bottom creating a foul smelling waterbody, low DO throughout, and a fish kill. If your waterbody would benefit from an aeration system it should be specifically designed for you lake. Each lake's needs, contours, and depths are unique. The system must fit your situation to be effective.

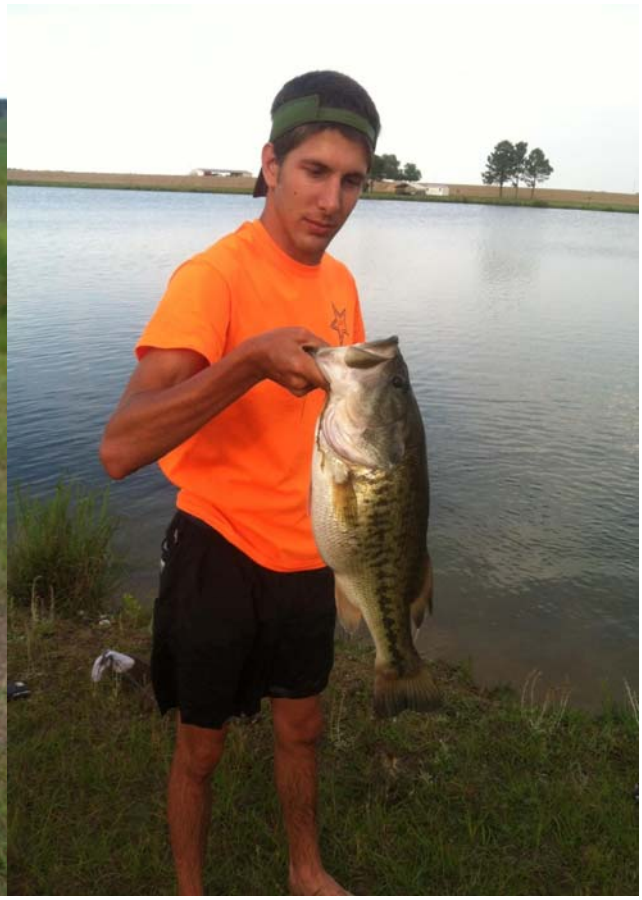
The remaining oxygen source in lakes is provided by submerged aquatic vegetation (SAV) and phytoplankton through photosynthesis. Aquatic plant management is an integral part of fisheries management which effects DO. Dissolved Oxygen levels are one of the monthly monitoring parameters we collect prior to any aquatic plant management decisions (herbicide use). Submerged Aquatic Vegetation is an excellent source of DO, and can provide cover for small fish and insects helping to maintain a balanced population. The main management issues associated with SAV is it can become a navigation and fishing hindrance with excessive growth. Herbicides, mechanical removal and grass carp are the best management tools used to maintain a healthy balance.

We often say a "green" lake is beneficial for fisheries. A green lake is green because of the phytoplankton growing in the water column. Not only does this provide a food source for small fish and insects, but it also provides a good source of oxygen for the waterbody. Although there are some risks involved with managing a green lake, if monitored and maintained, the fisheries will benefit from the phytoplankton. The biggest risk with a green lake is a phytoplankton die-off. The normal day/night cycle of photosynthesis is usually sustainable for aquatic life. Problems arise when the swing in DO levels is too large and/or the daytime recovery is hindered by minimal sunlight. A dye-off of phytoplankton is detrimental in two ways; not only has the photosynthesis process stopped, but now oxygen is being consumed as the decay process begins. The management tool often used to achieve a green lake is fertilization, which stimulates the growth of phytoplankton. A fertilization program will also facilitate the growth of undesirable plants if not monitored closely. Always follow label instructions when starting this type of program and follow through with regular monitoring.

Short Notes

The hunting season is almost here and we want to remind everyone that we offer Texas Hunter fish and game feeders. We have been around many of the current brands, and we feel Texas Hunter is one of the best on longevity, ease to operate and customer service. Many of our clients also feel the same way.

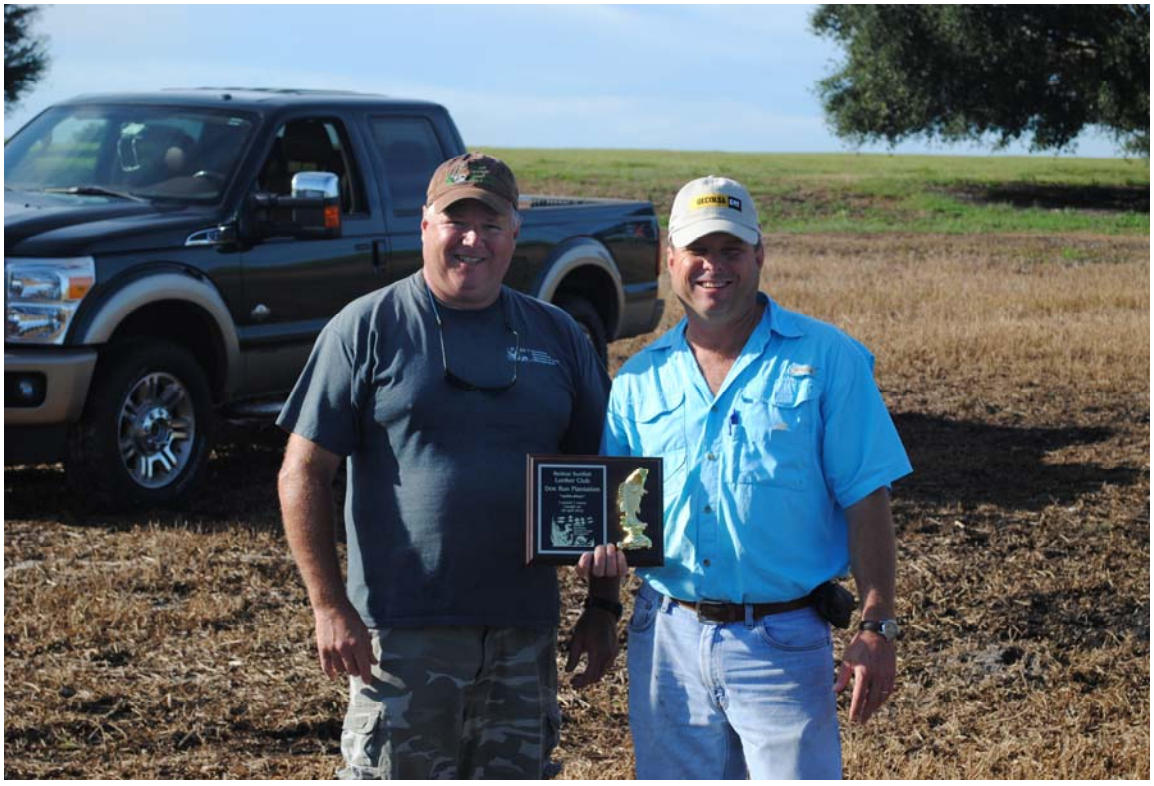




These beauties were caught this spring at Hall Farms near Sylvester, Georgia, in their three ponds totaling almost 50 acres. They reported catching over 60 bass in a couple days, throwing back the larger fish and removing the slot sized fish as part of their management strategy. Southern Sportsman Aquatics & Land has been working with them since 2008.

We want to remind everyone of the Southern Sportsman Aquatics & Land Management Lunker Fish & Bruiser Buck Clubs. A commemorative plaque will be presented to landowners who experience an exceptional fish being caught from their waterbodies or a whitetail deer harvested from their land that we manage on a regular basis. The landowner need not be the successful angler or hunter, but we do need a quality photo, name of angler or hunter, date and time caught or harvested, total length, girth and weight of the fish or antler measurements of the deer. Please check our web site for more details: http://southernsportsmanaquaticsandland.com/lunker_fish_and_bruiser_buck_club.

Please forward these newsletters to friends and colleagues or direct them to our web site where all previous Quarterly News Letters and links of interest can be found. We are now accepting credit card payments via the web site for certain merchandise (feeders, fertilizer, fountains, fish attractors, bird nesting boxes, along with hats and tee shirts with our company logo on it) purchases: http://www.southernsportsmanaquaticsandland.com. Also on the web site people can now sign up to receive electronic copies of the news letters. Please follow us on Facebook, where Steve and I post what we are doing in the field with lots of photos of various aspects of work, hunting and fishing trips and client success stories.



Scott Brown of Southern Sportsman Aquatics & Land Management presenting Doe Run Plantation owner, Jim Fenton a Lunker Fish Plaque for a 1.1 lbs redear sunfish caught in one of his lakes near Sylvester, Georgia. Jim has been a client since 2009.

If you are pleased with the services and products you receive from Southern Sportsman Aquatics & Land Management, please tell your friends and associates about us. The best compliment you can give us is a referral. We are always looking for additional clients from Texas to Florida and now in the Carolinas. We have had an enormous increase in electrofishing requests this year, so anyone wanting it performed this fall needs to contact us immediately to reserve a day, otherwise it will be spring 2014 before we can get to them.

Scott G. Brown, Owner

Southern Sportsman Aquatics & Land Management

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