

FISH SOUP

AZ-NM CHAPTER AMERICAN FISHERIES SOCIETY

Established 1967, Volume 36 Number 3

Fall 2005

President's Message

Dear Members:

Let me start my first president's message by saying thank you to all the members for your vote of confidence in electing me as your new president. I would also like to thank Scott Bryan for his leadership throughout the last year.

I am very excited about the opportunities that lay ahead for the chapter in 2006 and would like to focus on a few specific items. First and foremost, I plan to carry forth the direction in fiscal management which Scott started last year and will continue to concentrate on fiscal responsibility for the chapter. In 2005, the Chapter voted to participate in an endowment fund administered by the Western Division; I will ensure that monies are properly directed and our contribution to the fund begins as scheduled in 2006.

Also of great importance for the Chapter is to increase the involvement of the University of Arizona Sub-Unit, as well as the New Mexico State Student Chapter, in our activities. It is extremely important to provide as much assistance as possible to these collage students, as they are the future of our profession and our chapter. Over the next year, I plan on working hard to strengthen these relationships.

Finally, nominations and applications for our officers, scholarships, and awards have been minimal at best in the past. The Miles McInnis scholarship offers \$2,000 to deserving college students, and unfortunately, we rarely receive more than just a few applications. We also have very few nominations for both Professional of the Year and Conservationist of the Year. In both Arizona and New Mexico, we all do such fantastic work, but rarely recognize each other for our efforts. These are important awards and I am confident that everyone knows someone who is well-deserving. Please see the announcements in this edition of the newsletter and take a few moments to nominate your peers.

I look forward to serving the membership throughout the year and encourage anyone who has a question to call me anytime.

Paul Cassidy, President
Aquatic Consultants Inc.
Office 505-890-5753
Cell 505-228-6133

Fish Soup News!

SUBCATCHABLE RAINBOW TROUT STOCKINGS SUCCESSFUL IN THE WHITE MOUNTAINS OF ARIZONA

In the past, we have only stocked 3-inch fingerling rainbow trout in the spring and fall in put and grow lakes. While this worked in lakes with good water quality, we were running into problems in a few lakes. Crescent, Carnero, and Luna Lakes were having trouble with low trout numbers in the spring because of winterkills or high pH in the fall that prevented stocking. We were also having problems with stocking fingerlings in Becker Lake because we either got only a few fish surviving or so many fish surviving that the fish would stunt.



We stocked 60,000 6-inch trout instead of 350,000 fingerlings in the four lakes. Initial results show the 6-inch trout provides better summer fishing than the spring fingerlings. The subcatchables are caught in July as a ten-inch fish, the fingerlings are not at ten inches until two months later when the summer fishing season is over. Stocking fewer larger fish is also working in Becker Lake where the fish have better condition and growth this year. Initial results show that stocking 6 inch trout will provide better fishing in these lakes without increasing the number of pounds of fish stocked.

~Kelly Meyers, AGFD

CANYON LAKE BASS AND OTHER FISH ACE THEIR PHYSICAL EXAMS AND WEIGH IN BIG

Anglers who enjoy fishing at Canyon Lake between Mesa and Payson will be happy to hear that bass and other fish checked out in a routine AGFD survey there have a clean bill of health and are sizing up big. The department has regularly tested bass at several central Arizona lakes over the past three years for Largemouth Bass Virus (LMB Virus), and Canyon Lake was the most recent checkup site.

Biologists set gill nets at the lake in mid-July. They caught and tested more than 70 largemouth bass for LMB Virus and inspected other fish species for general health assessments. All of the largemouth bass tested negative for the virus. Similar tests at other Arizona reservoirs have also been negative. The Canyon Lake fish had no sores, were clean of parasites, and had large amounts of visceral fat, indicating that they're eating well.

Recent reports from regular bass fishermen at the lake say they're bringing in a good catch at Canyon Lake during daylight hours. On some days, more than 20 bass are brought in, several up to 8 pounds, and all fat and healthy. During the survey, biologists caught four bass that weighed more than 6 pounds each. Most were in the 2- to 3-pound range.

The survey also brought in 25 walleye, all from one age class averaging almost 13 inches in length. These were probably 13-month-old fish the department stocked in June of last year. That's when AZ received 900,000 sac-fry (less than 1/16 inch long) from a federal fish hatchery in ND. The fish were shipped to Mesa and stocked in the upper portion of Canyon Lake. Biologists calculated about a 30 percent mortality of the baby walleye because of warm water conditions. However, looking at the number of walleye caught during the survey, a good number of these fish will be incorporated into the lake's population. Walleye anglers will be pleased to see such positive results from the walleye stocking program the department has in place for several central AZ reservoirs. Threadfin shad were also abundant in the survey. Some nets caught literally hundreds of the 3-inch fish in the small mesh net panels. Crayfish were observed eating everything they could get, too. This indicates a good prey base at the lake because predatory fish like bass, catfish and walleye rely heavily on shad and crayfish as major food items in desert lakes. Lots of yellow bass in a variety of sizes were also caught. Some topped 13 inches, with the largest weighing about 2 pounds. This species rarely exceeds 1 pound, so the yellow bass collected come close to world-record size. Biologists caught more than 35 channel catfish, most averaging about 5 pounds. Two large crappies estimated at more than 2 pounds each were caught in the Boulder area.

~Jim Warnecke, AGFD

CREATING A PARADISE FOR SPORTFISH

One of the first questions we ask every prospective client is, “what is their vision of their water resource?” Most clients are not always sure and usually respond with “I want a clean, healthy lake that can support some big fish!” Oftentimes, those goals can be at odds with each other leaving the potential client frustrated. Aquatic Consultants, Inc. has taken great measures in order to provide a clean looking lake along with providing the necessary food chain and habitat to support trophy fisheries. One of our most recent projects is an example of such a fishery.



The ranch owner had a vision of providing his friends and hunting clients an opportunity to fish for trophy largemouth and striped bass right outside the lodge’s back door. Large-rock rip rap lines the entire shoreline keeping erosional deposition of soil to a minimum. In addition, a gravel cap over the entire bottom of the lake keeps sediments “locked up”, preventing turbidity from becoming a problem. The additions of vertical rock walls around the island and near the lodge provide a finished look in addition to allowing angler access to relatively deep water. All these features make for an extremely clean, clear-water look.

ACI biologists have come up with a number of options to bypass the normal primary and secondary production necessary to produce trophy fish. Aquatic plants normally produce the necessary dissolved oxygen and habitat necessary to sustain a sport fishery. The installation of strategically-placed lake aeration systems allow for the efficient transfer of oxygen at the surface of the lake, all the while maintaining an even distribution of oxygen from top to bottom. Placement of large rock and log structures throughout the lake provide the necessary habitat for predator fish. Stocking the lake with forage species (e.g., fathead minnows, mosquito fish, freshwater shrimp, etc.) prior to the introduction of sport fish

enables the prey base to get a “head start” and provide the necessary nutritional base for their larger counterparts. Finally, supplemental commercial feed ensures that fish grow to their maximum potential.

Stocking rates of sport fish are critical if the fishery is going to sustain itself and provide for some trophy opportunities. Our biologists have developed these rates based on the relatively sterile nature of the lakes we manage. Constant monitoring of the condition (i.e., relative weight) of the sport fish allow our biologists to fine tune future stockings and/or adjust harvest numbers.

Bottom line—ACI is able to provide our clients with the best of both worlds, clean healthy lakes that produce very big fish!

~Scott Bryan, Aquatic Consultants Inc.



NATIONAL FISH HABITAT INITIATIVE

There is a new effort afoot to inject a bit of energy into Fish Habitat conservation. The National Fish Habitat Initiative is a brainchild of the International Association of Fish and Wildlife Agencies (representing the US States and Territories, Canadian Provinces, and Mexico), the Sport Fish and Boating Partnership Council, and the US Fish and Wildlife Service. It is viewed as a future avenue for financing partnerships to improve aquatic habitat for all kinds of fish and aquatic wildlife. The Initiative is on the roll right now, and a draft framework for the initiative has been developed by a core work group. The core work group includes folks from the states, the US Fish and Wildlife Service, NOAA Fisheries, NGOs (TNC), the National Fish and Wildlife Foundation, and industry (BASS Proshops and PURE Fishing). The ‘partnership’ supporting the development of this initiative is broad and growing – and represents State and Federal Agencies, NGOs, Industry, Academic Institutions, and Individuals. Check out the details at www.fishhabitat.org and learn more about it. Encourage your organization to look it over and join in as a partner. Encourage our Chapter and Student Chapters to consider joining on.

~Larry Riley, AGFD

LOW DISSOLVED OXYGEN PLAUGING GLEN CANYON

AGFD Fisheries and Research Branches have met with the Bureau of Reclamation, Grand Canyon Monitoring and Research Center, and Western Area Power Administration multiple times by conference call over the last six weeks. The critical issue is low dissolved oxygen (DO) water being released from the dam into the tailwater below (Lee's Ferry). The source is a lens of low dissolved oxygen water that resulted from spring inflow to Lake Powell. That inflow carried with it a high concentration of dissolved organic material and a high biochemical oxygen demand. The water plunged into Lake Powell and has traveled at depth toward the dam. GCMRC has been tracking that layer of water as it has moved down lake. That water has reached the dam and DO has been declining at penstock depth since August, dropping to about 3 mg/l most recently – not too desirable if you happen to be a trout living in the tailwater.

There was considerable concern for the well being of the trout fishery at Lee's Ferry. Consistent minimum DO levels below 5 mg/l are stressful at best, and all indications from the progression of DO in Lake Powell that releases could be headed below 3. There was some evidence of re-aeration as water traveled downstream from the dam that was attributable to both atmospheric re-aeration and in-stream production, but there was significant concern that it wasn't and wouldn't be enough. There were pretty large diel swings in DO, and daily minima were in the stressful range and headed toward potentially lethal.

Working with BR and GCMRC, we identified an operational strategy which restores dissolved oxygen in the tailrace. Huge credit goes to Susan Hueftle and Bill Vernieu (GCMRC) and Bill Persons (AGFD) for tracking this, alerting us all to the problem, and observing what turned out to be a potential solution. Reclamation engineers and scientists and scientists at Western Area Power Administration combined efforts with GCMRC and AGFD Research to evaluate and document the effects that were observed and turn them into a strategy. As it turned out, operating one or more turbines at lower flows resulted in what I'll call turbine venting. We don't fully understand the process, but this venting of

atmospheric air into the turbines at lower flows resulted in re-aeration – not quite at saturation but pretty close. The phenomenon was observed partly by accident and good scientific snooping. Elevation of DO in the tailrace immediately below the dam was being observed during night-time hours. Several hypotheses were reviewed, but close inspection of power plant operations suggested that the phenomenon was correlated with the release of low volume of water through one or more turbines. A series of experiments were designed and conducted to document the effect and it proved out.

The strategy is not without a catch. This mode of operation is less efficient for generation of electricity and there is concern that cavitation of the turbines under these conditions is causing erosion of the turbine runners (blades). You can imagine that folks might be hesitant to utilize the strategy for fear of damage (cavitation) to turbines and reduced efficiency. The strategy has been implemented, at least temporarily. We are hopeful that they can continue this strategy until the lake turns-over and the root of the problem is removed. The issue could re-emerge if it is determined that the cost (lost generation efficiency or damage) is too great to continue. It could also re-emerge in the spring when the lake restratifies. Stay tuned. We don't really know the level of effect the depressed oxygen has had on the trout. Visual observations suggested a possible loss of larger fish, but time and catch rates will tell.

~Larry Riley & Bill Persons, AGFD

IMPROVING ANGLER ACCESS AND EXPERIENCE

It's a beautiful day at the lake. The sun is just peaking over the surrounding hills and birds are causing a cacophony in the trees as you cast your line far out into the lake. A largemouth bass just misses taking the bait. Hurriedly, you reel in to try to catch it on the next cast. Unfortunately, the end of the line is tangled in a mess of weeds so thick that it takes several minutes to untangle and the bass is gone. This is a common frustration for the anglers at Pena Blanca Lake that's about to change.

Pena Blanca Lake was built in 1958 to provide a warm-water fishery to the residents of southern Arizona. Aquatic vegetation has always

been present at the lake but in the 1990's the vegetation has reached critical mass. During the summer of 2005, 30 of the 50 acres of the lake were completely choked with weeds. It is virtually impossible to launch boats during the summer months and the coves are un-navigable. Bank and pier fishing is almost non-existent. In 2004, Arizona Game and Fish (AGFD) Region 5 Fisheries Program started looking at how to improve angler access. A preliminary report indicated that there was one major species, Coontail, causing a majority of the problems and that the AGFD's cutting barge was actually aiding in its spread throughout the lake.

After examining several alternatives, it was determined that the aquatic herbicide, Reward, would be the best method to gain control of the weeds. Earlier this fall, AGFD, in conjunction with the Coronado National Forest, finished the NEPA process. Early this coming spring, 2006, treatments will begin to reduce the amount of weeds in the lake. Not only will bank, pier and boat anglers have improved access to the resources but the fish in the lake will have greater access to prey and breeding areas. Pena Blanca Lake is on its way back to being a southeastern gem that it was known to be by area anglers.

~Dannette Ihle, AGFD

TEMPE TOWN LAKE 2005 PRELIMINARY RESULTS

On April 20-22, 2005, Arizona Game and Fish Department (AGFD) biologists conducted the annual Tempe Town Lake fish population survey. Because of floods this winter that resulted in the deflation of both dams, the normally impounded lake reverted to a riverine environment from January-March of 2005. In April both dams were once again inflated, impounding Town Lake. We were anxious to know species and densities of fish that remained in the lake.

The good news is that a wide variety of fish are still present in the lake. We caught 526 fish representing 13 different species. This compares with 882 fish sampled in spring 2004 representing 11 species in Town Lake. Methods and effort for both surveys were virtually identical. Based on first impressions of the survey it appears that we lost

approximately one third of the overall fish population in Town Lake.

Approximately 80 fish caught during the 2004 survey were rainbow trout and tilapia. We did not expect nor did we find these species this year due to the flooding. The winter trout fishery was discontinued late in 2004 during high water releases and the fish probably went up or downstream with the river current. We think the tilapia population biologically could not handle cold water temperatures from snowmelt runoff and were swept away.

Of interest was the largemouth bass population. We caught 78 largemouth during the survey compared to 198 last year. Catch Per Unit Effort (CPUE) for



this species was approximately 50% of the CPUE documented in 2004. Bass sampled this year represented four distinct year classes and all appeared healthy. The largest bass measured 18 inches and weighed 3.5 pounds. Twenty-five of the bass collected weighed more than 1 pound.

Carp populations appear to be depressed. During this years survey we caught 31 carp compared to 147 in 2004. This was to be expected, as carp instinctively will swim up and downstream of river currents. Channel catfish populations appeared on the rise despite the floods. It appears that these river adapted fish managed to remain in the lake, regardless of added flows. Catfish populations actually were up 75% from last year. We caught 88 catfish that varied from 3-16 inches. Many of the fish are approaching one pound. Looking to the future, these smaller cats should grow fast as weigh between 1.5 and 2 pounds by the end of the summer providing good angling opportunities. Yellow bass numbers remained about the same as last year. We caught 76 compared with 69 from a year ago. There were two dominant year classes, one group of 4-5 inch fish and another of 6-8 inches. These fish should respond well to the favorable growing conditions and be pan size fish by this fall.

Tempe Town Lake is a highly productive lake courtesy of the nutrients flushed into the lake and fish populations should rebound quickly. Most

warmwater fish species should have excellent spawn this spring and abundant forage fish (shad and sunfish) will provide optimum growing conditions for predatory fish. Both sunfish and shad were found in good numbers to support largemouth bass, yellow bass and channel catfish. Carp will also take hold again as many of the fish were of reproductive age. As a matter of fact, the big fish of the survey was a common carp weighing 13.5 pounds and measuring 32 inches.

~Richard Wiggins, AGFD

WESTERN NATIVE TROUT INITIATIVE

Almost every western state with native trout habitat has plugged in to this initiative. The Western Native Trout Initiative was born in the Western Association of Fish and Wildlife Agencies about 2 years ago. Its infancy was a little rocky but it is beginning to move now. The initiative is envisioned to be a “partnership” or “joint venture” under the fledgling National Fish Habitat Initiative with a focus of restoration of western native trout species. It has a distinct habitat focus, but we are interpreting “habitat” pretty broadly. The core of this idea is that conservation strategies, conservation agreements, and recovery strategies for many of these western trouts have a lot in common. What if we could link them together as a west-wide strategy to build partnerships and secure additional funds to implement these strategies? Maybe the key term is ‘secure additional funds’. It’s all about thinking broadly, but working locally; and it’s all about doing things in partnership and providing positive incentives to get work done. A few folks have worked pretty hard on getting this fledgling program to make its first steps. Scott Gurtin, AGFD facilitated a huge effort to put together a proposal for a multi-state grant from the International Association of Fish and Wildlife Agencies to begin putting these pieces together. Scott worked with folks from Alaska, California, Idaho, Montana, and many of the western states. In early October, representatives from 11 western state wildlife agencies, 3 USFWS Regions (and the California and Nevada Office), the US Forest Service, and US BLM got together to try to continue the planning for this effort. I think its gaining momentum and could be a force to be reckoned with

in the not too distant future. Keep your ear to the ground for more news, and encourage your organization to learn more about the initiative.

~Larry Riley, AGFD

FISH ARIZONA CAMPAIGN

Drought and fires have significantly hampered participation in fishing over the last 6 or 7 years, and it’s been reflected in license sales. With increased precipitation this year, we thought that the time was ripe to get folks back to fishing. A concerted marketing campaign was launched last spring targeted at reminding Arizonans of their fishing opportunities, and to get them back on the water. The campaign has focused on a diverse set of outreach efforts – some very professionally crafted, and some seat of the pants efforts as well. Some of our employees have taken the challenge so seriously, they bet their annual bonuses (a program called PIPP) on the fact that we could remind folks about fishing and our license sales would show it. The FISH ARIZONA campaign was hatched, and has been going strong all summer long. It is as corny as stickers and t-shirts, and as sophisticated as media strategies. The campaign included professional media buys, outreach efforts at EXPOs and ball parks, media events, inserts with utility bills (SRP), billboards, and a concerted effort to get fish and fishing covered by the print and TV media.

The results have been reflected in license sales. One might have thought that just more water would be enough to jolt license buyers into returning to the lake – but not so. An analysis of our license sales over the years did not reflect increased buying with increased precipitation. License sales in the first half of 2005 did not reflect a real pulse in license buying either. April and May sales were on par with 2003 and 2004. But by mid year, in the midst of FISH ARIZONA, license sales began to climb. Increases in monthly sales have been consistent – 6 to 7 % above 2004 sales levels for fishing licenses, and trout stamp sales have increased between 10 and 14 % above 2004 sales. Of course having water doesn’t hurt, but combined marketing emphasis and fishing opportunity can make a winning strategy.

~Larry Riley, AGFD

EXPLORING THE CONCEPT OF MANAGING A "TROPHY" BASS LAKE IN CENTRAL ARIZONA

Arizona Game and Fish Department will look into establishing a Trophy Bass fishery at Canyon Lake. However, an analysis of many factors must be researched before recommendations and plans are developed. A literature review of other states that have programs was conducted. How fisheries are established, managed, success evaluated, public perception and economic impacts in other states can serve as a "benchmark" for Arizona fisheries managers. Several states were chosen to highlight and contrast specific agency management plans. Certain states were chosen because of their proximity to Arizona and similar climate while others were identified as leaders in trophy fish management, whose management strategies have become templates for other state programs. Many other states are in the process of developing bass management plans and creating trophy bass lakes. Some common threads shared between many of the plans are noted. Finally, some recommendations on what we need to do and where to start if we choose to proceed.

California

- * Has a successful Trophy Black Bass program
- * 21 of 25 heaviest U.S. LMB records are from CA
- * Angling for trophy bass generates over \$1 billion to CA's economy
- * In 1980 CA legislature adopted the Black Bass Conservation Act, which states, "It's the policy of the state to preserve and enhance black bass resources and manage black bass populations to provide satisfactory recreational opportunities to the public".
- * In 1993 started a Trophy Black Bass Program, provided for in a clause of the Black Bass Conservation Act
- * CA manages at least one lake in each region as a Trophy Bass lake
- * LMB 10lbs; SMB 6lbs; Spotted 6lbs are min. weights for trophy fish
- * All have different regulations, most have 12-15in. slot with a harvest of one over
- * Established "Trophy Black Bass Recognition Program". Anglers submit a form and verified catches are recognized with a

certificate. If fish are released they are awarded with a "Catch and Release" pin.

- * Stock Florida strain LMB in 54 lakes, eight of which are designated trophy LMB lakes under the Trophy Black Bass Program
- * CFGD regulates tournaments (permits) and extends an exemption from angling regulations during tournaments (weighing slot fish and the one over possession limit). The state does not physically monitor tournaments but does require a return report that includes the date of the contest, the number of competitors, the duration of the contest, total catch, weight of the total catch, species and weight of the largest individual fish, and the number of dead fish weighed-in.

Texas

- * Manages many trophy bass lakes. As an example, Lake Fork was created by flooding pine forest for purpose of growing trophy size bass.
- * Four bass limit, only one over with a 16-24in. slot
- * Stocked only with Florida strain and supplemented with 15, 000 fingerlings yearly
- * Has produced 222 of 391 of the states largest fish in last decade. 24 of 25 heaviest state records and includes the 18.20lb state record.
- * 15 marinas all have volunteer exit creels for CPUE, weight and length of all bass caught
- * Guides and tournaments are required to fill out an exit creel at this lake
- * TX has a ShareLunker Program: anglers loan LMB weighing 13lbs or more to Parks and Wildlife for spawning/research purposes. At the end of spawning season, the fish will be returned to the angler for live release, or the angler may donate it permanently to the program. Superior genetics from ShareLunker females and their offspring are used to improve the quality of LMB stocked in Texas. Anglers get a free fiberglass replica of their catch.

Arkansas

- * Has a statewide LMB management plan
- * Trophy Lake Management Program uses biological criteria to identify waters that have potential to produce large bass. These criteria are:
 1. Age 1 CPUE of 20-30 bass/hr during spring electrofishing surveys
 2. Average length at age 3 > 14 inches

3. Available Prey/Predator ratio > 1 for bass over 15 inches
4. Gizzard or threadfin shad forage base
5. Public acceptance
6. PSD of 50-70%; RSD of 30-40%
7. Total CPUE of 75-100 bass/hr in spring electrofishing; CPUE of 15-40 bass/hr > 15in in spring electrofishing
8. Suitable for FL bass introduction

* Currently there are 7 lakes managed as trophy largemouth bass fisheries.

* Have 16-21 inch slot, 5 bass limit only one over

* Conduct yearly creels at trophy lakes

* Supplement stockings of FL strain fingerlings

* Regulate tournaments, require tournament data at trophy bass lakes, and allow exemptions for fishing regulations for tournaments. Provide technical support with live releases and proper fish handling care. Administers the Arkansas Tournament Information Program which consists of collecting; analyzing and documenting volunteer tournament data. Information generates a report that provides valuable data used in tracking trends in bass angling success and catch rates over time. Negative aspect is increased demand on fisheries personnel time and expense. Managers justify this by the benefits of good public relations.

* Have Angler BIG FISH Program

Other states have adopted similar regulations and plans for managing trophy bass lakes. Florida, Virginia, Oklahoma, Kentucky, Connecticut, Mississippi, Tennessee, Alabama, Missouri and Georgia are the most notable. Many other states are in the process of creating trophy bass lakes and developing bass management plans. There are some commonalities between all management strategies. These are:

1. Large slots generally 15-22 inches
2. Harvest of only 1 over
3. Stocked with Florida strain bass (many supplement and stock fingerlings yearly)
4. Evaluations of lakes with creel, angler recognition programs and electrofishing surveys
5. Use productive lakes with good spawning habitat and cover

6. Have high growth rates with a good forage prey base

7. Consider a 8-10lb bass a trophy fish

Arizona has great potential for having several successful trophy lakes. Canyon Lake is an ideal candidate because it already grows large bass and may meet criteria that other states use. We differ from other states in that we don't need to stock FL strain LMB. Outlined below are recommendations on how we may proceed.

1. Need to determine bass abundance, size class structure (age distribution), condition factor (W_r/K_{tl}) and growth rates. Bass abundance and age distribution are driven by three factors: recruitment, growth and mortality. I like the criteria Arkansas uses because it identifies the baseline biological parameters necessary to produce trophy size fish. Easier said than done, because this would require an intensive trend survey through spring electrofishing.
 2. Determine angler CPUE, harvest rates and sizes for LMB. This would involve an intensive creel survey.
 3. Get public input. I would suggest public meetings and a mail out survey from the angler database.
 4. Determine the positive and negative economic impacts
 5. Determine what a trophy bass is in Arizona
 6. Create angler recognition program similar to CA
 7. Decide on what to do about bass tournaments at the trophy lakes. Are tournaments going to be exempt in regards to holding/weighing slot fish and a likely one fish over requirement for weigh-ins? How is AGFD going to monitor tournaments at trophy lakes?
 8. Only after 1-3 is answered should regulations be proposed. If we go in this direction, is that we have to manage for a "Trophy Lake". What we are trying to do is capitalize on a lakes high productivity and LMB growth potential. This will mean a bit more manipulation with the fishery through regulation changes and a long-term monitoring and management plan.
 9. Follow up evaluation through creel and electrofishing surveys required for at least three years following any regulation change
- ~Richard Wiggins, AGFD

GOLDEN ALGAE BLOOMS PHOTOS

Golden algae, scientific name *Prymnesium parvum*, produces a toxin that damages gills and causes fish to suffocate because they can't obtain oxygen from the water. Golden algae is only toxic to gill-breathing organisms such as fish and mollusks. It usually occurs in winter or early spring and does not affect humans, other mammals or insects that come into contact with it.



chapter of TU to take over a stream in the Blue Primitive area of the White Mountains. We will repatriate the stream to make it suitable for Gila trout restocking. This will provide our chapter with an ongoing monitoring project and working/camping weekends for years to come. Our meetings have featured speakers from AGFD and USFWS, all who have given us insight to the workings of the agencies and what it is like to work for them. We are always looking for members and invite all who are interested to contact Jason Kline (jljkine@yahoo.com) or any officer for more information.

~Jason Kline, University of Arizona

AZ/NM Chapter Continuing Education Class Summary

Does the term bankfull stage mean anything to you? Have you ever classified a stream channel before? If you were one of the fortunate ones who attended this year's continuing education class you can say yes to both of these questions. This year's class titled "Fluvial Geomorphology in Natural Channels in the Arid Southwest" taught by Tom Moody, was an excellent class. It began with the sun rising over the beautiful Gila Mountains, with 30 students anxiously awaiting the beginning of the three-day experience. The Forrest Service Supervisor District in Silver City, NM graciously provided this year's accommodations. Day one was filled with lecture on the fundamentals of stream geomorphology, bankfull stage, channel classification, and field methods. Day two opened with a field trip where we eagerly (except for those who overindulged at the prior evening's tequila social) applied the skills we learned on the day prior. Day three found us back in the classroom where we worked up the data we collected the day before, discussed the results and went into further detail on assessment, monitoring, and design applications/procedures.

I felt the class was very worthwhile. The instructor was very knowledgeable about the subject and did a good job in explaining the material. We actually had a chance to go out into the field and apply what we learned, always a good experience. Not only was the class very good, but as always, it was good to see many old friends and a great opportunity to make

AFS Student Updates! University of Arizona Student AFS and Trout Unlimited Chapter

Our Chapter has been active this semester. We started off with a bake sale and raffle for the victims of hurricane Katrina that raised nearly \$300. We had a camping trip at Reddington Pass, and have had several volunteer projects. We helped AGFD with their local projects including bullfrog eradication in Sycamore Canyon; a Gila chub count in Cienega creek and are helping with the stocking of Gila chub in Romero and Bear Canyons next week. With Trout Unlimited we helped a Boy Scout become an Eagle Scout by helping with a crayfish population count and eradication in the west fork of the Black River and helped repair some of the fish barriers that protect the Apache trout. I am working with the local

new ones. I look forward to seeing everybody at this year's meeting in Flagstaff and am excited to hear from you with ideas for next year's workshop.
~Casey Harthorn, NMGF

CHAPTER NEWS!!!
**2006 JOINT ANNUAL
MEETING OF THE AZ/NM
CHAPTERS OF THE
AMERICAN FISHERIES
SOCIETY AND THE
WILDLIFE SOCIETY**
February 2-4, 2006
First Call for Papers
NEW LOCATION: Flagstaff (bring your skis)

**Deadline for receipt of abstracts is
5 PM, DECEMBER 2, 2005.**

Send Wildlife abstracts to: Carol Chambers
(Carol.Chambers@nau.edu)
Send Fisheries abstracts to: Pam Sponholtz
(pam_sponholtz@fws.gov)

Contributed papers will be scheduled for 20-minute blocks of time. Presentations should therefore be limited to 15 minutes to allow time for questions. Presentations will be limited to PowerPoint only. Abstract format: first give the title, double space, and then give authors' names and their affiliation(s). Capitalize only the first word and proper nouns in the title and do not put a period after the title. Capitalize only the presenting author's name (last name, then first and middle initial) and state abbreviations. Place three asterisks and one space before the name of a presenting author who is a graduate or undergraduate student and would like to be considered for the Best Student Paper award. After authors and their affiliation have been given, double space, and start the abstract. Do not indent any part of the abstract. The abstract should be a single paragraph. Abstracts should include a statement of objectives, brief

description of methods used, concise presentation of results, and a summary of conclusions/inferences drawn. Avoid using statements such as "Results will be discussed." Italicize scientific names but do not italicize statistical denotations such as n, P, or SE. Use standard abbreviations for units (m for meters, ha for hectares). Use metric units only. Use Times New Roman 12-pt font. MS Word documents are preferred but WordPerfect files can be accepted. Double space after the abstract and state whether the abstract is being submitted as a wildlife or fisheries abstract for an oral presentation or a poster.

SAMPLE ABSTRACT 1:

Space use and social organization of endangered Mt. Graham red squirrels: It's lonely at the top

KOPROWSKI, JOHN L., and Sarah R. B. King.
Wildlife and Fisheries Resources, School of
Renewable Natural Resources, University of Arizona,
Tucson, AZ 85721

The Mt. Graham red squirrel (*Tamiasciurus hudsonicus grahamensis*) is endemic to the high elevation coniferous forests of a single montane isolate in southeastern Arizona; the species was listed as endangered in 1987. A dearth of ecological data on the species has been promulgated due to extreme difficulty in capturing this rare tree squirrel. A number of basic ecological questions have remained unanswered including such important questions as the amount of space used by a single individual and inter-individual overlap. In 2002, we initiated a radiotelemetric study to investigate the behavioral ecology of Mt. Graham red squirrels. Herein, we review home range sizes, maximum linear movements, inter-individual overlap, and communal nesting of 30 individuals during the first year of space use studies. Home ranges are large in comparison with other populations but are characterized by a small core of intensive use. Few differences were found between the sexes; however, long-distance movements were occasionally made by males, apparently associated with the breeding season. Although often described as territorial and solitary, Mt. Graham red squirrels demonstrate some spatial overlap with rare instances of nesting in pairs. These results have important implications for

informed conservation and habitat management decisions of this endangered species.

This abstract is submitted for a wildlife oral presentation.

SAMPLE ABSTRACT 2: STUDENT PRESENTATION

Title of student presentation with proper nouns capitalized and no period after title

*** LAST NAME, FIRST NAME I. (Graduate student), First Coauthor First name, Last name, University X, Department of Y, P.O. Box 123, City, AZ 87654 and Second Coauthor First name, Last name, State Agency, 1234 S. Antelope St., City, NM 78901

The abstract should be a single paragraph. Abstracts should include a statement of objectives, brief description of methods used, concise presentation of results, and a summary of conclusions/inferences drawn. Limit abstract to 250 words. Use alpha-numeric numbers, do not spell numbers out. Do not use contractions. Double space between sentences.

Helpful guidelines for effective oral and poster presentations can be found at the national TWS web site: www.wildlife.org/conference/index.cfm?tname=oralguidelines.

www.wildlife.org/conference/index.cfm?tname=posterguidelines.

AZ/NM AFS CALL FOR AWARD NOMINATIONS

It's that time of year again where we have the opportunity to award our peers and those outside our profession for their outstanding work related to fisheries and the aquatic resources. We give the following two awards at the Joint Annual Meeting in February; please submit your nominations for these two awards by **January 15, 2006** to Scott Bryan scottbryan@aquaticconsultants.com.

Conservationist of the Year Award

The Conservationist of the Year Award is for significant involvement and accomplishments by an

individual or group not employed in the fisheries or aquatic resources profession. Nominations should include a brief biography and discussion of the significant involvement and contributions towards conservation of fisheries and/or aquatic resources. The only criteria for this award is that the award is based on fisheries and/or aquatic resource-related work accomplished in Arizona or New Mexico and can span more than one year.

Professional of the Year Award

The Professional of the Year Award is awarded to an individual employed in a capacity related to fisheries and aquatic resources. Nominations for individuals should include a brief biography along with information pertaining to service, impact on the resource and other professionals, and significant accomplishments.

1. Only members in good standing can make nominations.
2. The recipient must be a member in good standing.
3. The award is based on fisheries-related work done in AZ or NM and can span more than one year.
4. The nominee may not be on the Nominations/Awards Committee.
5. Eligible accomplishments by the nominee can be from any of the following categories:

Administration

- a. Development of innovative management programs, research activities, or facilities that significantly affect fisheries management and conservation on a regional or statewide level
- b. Leadership in implementation of regulations or management programs that address regional or statewide fisheries issues
- c. Development of new sources of funding for fisheries programs
- d. Leadership in the development of public outreach or recognition/award programs
- e. Significant and effective promotion of fisheries management and conservation activities on a regional or statewide level

Culture

- a. Development of techniques that produce fish more safely, more efficiently, or more economically.
- b. Development of methods that produce species not formerly cultured
- c. Development of techniques that produce more fish

- d. Participation in the development of equipment that benefited fish culture
- e. Promotion of fish culture
- f. Participation in the production of a record number of fish (may be station or species specific)

Education

- a. Development of an innovative approach to fisheries education as illustrated through development of a new or revised course or curriculum
- b. Publication of a journal article, extension publication, book, or book chapter that contributed significantly to fisheries education
- c. Contribution of notable service in public education programs
- d. Development of educational media (software, videotape, slide tape, etc.) that contributed significantly to fisheries education
- e. Outstanding contribution to the profession through service as an officer or other leader of an educational organization (e.g., Education Section of the AFS)

Management

- a. Development of management plans or strategies or implementation of management practices (reservoir/ pond management plans, pre-impoundment work, habitat work, development of urban fisheries). This would include private water work
- b. Education of the public in areas of fishing or fisheries management (fishing clinics, educational programs, media, develop fliers, brochures, newsletters, bulletin boards, etc.)
- c. Coordination with different agencies (cities, counties, or federal government) or reservoir controlling authorities to develop or implement management strategies
- d. Participation in professional scientific organizations in the fisheries field to include offices held, committees served on, or other activities accomplished for the organization.

Research

- a. Research contribution should add to the understanding of a biological problem or to solving a resource problem.
- b. Research contribution can be basic, applied, or a combination.

- c. Research contribution should have been disseminated, in order of importance, in a peer-reviewed journal, non-peer-reviewed publication, or an oral presentation.
- d. Research in professional and public organizations in the fisheries field, which comment, advise, or review research activities.
- e. In order of importance, the nominee's role in a research project should be directing the project or program, establishing the project or program, analyzing data, or conceiving the project or program.

Technical Support

- a. Development of new or improved design and/or construction of equipment used in field sampling, culture operations, lab analysis, etc.
- b. Participation in outstanding or unique management, research, or culture activities, which contributed significantly to the fisheries profession.
- c. Participation in programs to educate other fisheries workers or the public (fishing clinics, seminars, articles, brochures, etc)
- d. Accomplishments resulting in new or improved techniques or greater efficiency (data compilation and analysis, lab techniques, productive fish culture techniques, fish sampling techniques, etc).

AZ/NM AFS OFFICER NOMINATIONS

We will now begin accepting nominations for the 2007-2008 Chapter President-Elect and Chapter Treasurer who will be elected at the upcoming business meeting at the Joint Annual Meeting in February. The President-Elect elected will take office in August 2006 and serve a three-year term, performing the duties of President-Elect in 2006-2007, President in 2007-2008, and Past-President in 2008-2009. Traditionally, we alternate between a President from New Mexico, followed by a President from Arizona, and so on. Following this pattern, the President-elect should be from New Mexico. Due to our current Treasurer becoming the 2006-2007 President, we also need to nominate a new Treasurer. Please submit your nominations for Chapter President-Elect and Treasurer to Scott Bryan scottbryan@aquaticconsultants.com.

AZ/NM AFS

Miles McInnis Memorial Undergraduate Student Award

2005-2006 Application Procedures

Aquatic Consultants Inc. and the Arizona-New Mexico Chapter of the American Fisheries Society are pleased to announce that applications for two \$1,000 undergraduate student scholarship awards are now being solicited. This award program provides an opportunity for two undergraduate students in the general area of fisheries science. An award committee of fisheries scientists will make the decision regarding the awards. The money will be awarded for the fall and spring semesters, 2005-2006. Recipient(s) will be honored and receive the award at the annual chapter meeting awards banquet in Flagstaff, Arizona, February 2-4, 2006.

Application Criteria and Process

1. Applicants must be a member of the Arizona-New Mexico Chapter of the American Fisheries Society at time of application.
2. Applicants must have completed 45 hours of study at a university in Arizona or New Mexico.
3. Applicants must have a major field of study that is related to fisheries or aquatic science.
4. Applicants must submit an application package containing the following:
 - A letter to the award committee that includes:
 - A statement of the applicants career goals and reasons for applying for the award (<200 words);
 - A description of the student's degree program and the anticipated date of completion;
 - A description of the student's involvement in the Arizona-New Mexico Chapter of the American Fisheries Society;
 - The names, addresses and phone numbers of two faculty members familiar with the student's background and abilities.
 - Copies of undergraduate transcripts.

**Please submit the application package before
January 20, 2006 to:**

Scott Bryan; Aquatic Consultants, Inc.; 4415
Hawkins St., NE Suite D; Albuquerque, NM 87109

Upcoming Local Meetings

Symposium Proposal for the 2006 AFS Western Division Annual Meeting May 15-19, 2005 in Bozeman, Montana

Meeting theme: 'natives to newcomers'. Submit oral and poster abstracts online before **January 11, 2006** at <http://water.montana.edu/afs/> contact: Bob Hughes: hughes.bob@epa.gov; 541-754-4516 or Chris Guy cguy@montana.edu; 406.994.3491.

Sixth Conference on Research and Resource Management in the Southwestern Deserts: Borders, Boundaries and Time Scales

May 2-5, 2006 in Tucson, Arizona

First Call for Papers Regarding: Socio-cultural and ecological frameworks from both U.S. and Mexico perspectives: Integration of socio-cultural and ecological concepts across borders using socio-cultural, economic, and ecological models to help find solutions. Inventory and monitoring of socio-economic and ecological systems. The role of politics in managing resources across borders. Collaboration between Mexico and the U.S. Contact: Bill Halvorson; 520-621-1174; bhalvors@ag.arizona.edu

2006 Hutton Program

The Hutton Junior Fisheries Biology Program is a summer mentoring program for high school students sponsored by AFS. The principal goal is to stimulate interest in careers in fisheries science and management in underrepresented groups in fisheries professions. Application to the program is open to all sophomore, junior, and senior high school students. Students selected for the program are matched with a professional mentor in their area for a summer-long, hands-on experience in a marine or freshwater setting. A scholarship of \$3,000 is awarded to each student accepted into the program. Deadline is **February 15, 2006**. Mentor and Student Applications for the 2006 Hutton Program are available at www.fisheries.org. Contact: Danielle Hawkins (301) 897-8616x213; hutton@fisheries.org.

Upcoming National Meetings!

Dec 11-14—**Annual Midwest Fish and Wildlife Conference: Bridges to Understanding: Linking Multiple Perspectives**, Grand Rapids, Michigan. See www.midwestfishandwildlife.com.

Apr 19-21—**Symposium on Climate Variability and Ecosystem Impacts on the North Pacific: A Basin Scale Synthesis**, Honolulu, HI. See www.pices/int/meetings/international_symposia/Honolulu2006/default.aspx.

May 7-11—**Fifth National Monitoring Conference: Monitoring Networks: Connecting for Clean Water**, San Jose, CA. Contact NWQMC2006@tetratetch-ffx.com, 410/356-8993.

Jun 4-9—**American Society of Limnology and Oceanography Summer Meeting: Global Challenges Facing Oceanography and Limnology**, Victoria, B.C. Canada. See <http://aslo.org/meetings/victoria2006/>. Contact secor@cbl.umces.edu.

Jun 25-28—**International Conference on Rivers and Civilization: Multidisciplinary Perspectives on Major River Basins**, La Crosse, WI. See www.rivers2006.org/. Contact James Wiener, weiner.jame@uwlax.edu, 608/785-6454.

Jul 12-17—**American Society of Ichthyologists and Herpetologist Annual Conference**, New Orleans, Louisiana. See www.asih.org/meetings/meetings. Contact Mark Pyron, mpyron@bsu.edu.

Aug 6-11—**Eighth International Conference on Mercury as a Global Pollutant**, Madison WI. See www.mercury2006.org. Contact James Wiener, weiner.jame@uwlax.edu, 608/785-6454.

Sep 10-14—**AFS 136th Annual Meeting**, Lake Placid, NY. Contact Betsy Fritz, bfritz@fisheries.orgT, 301/897-8616, ext. 212.

Notices

Larval Fish Conference 2006

Following the devastation caused by hurricanes Katrina and Rita, the conference won't be held in New Orleans. AFS has agreed to allow the Larval Fish Conference to meet in conjunction with the annual meeting Sept 10-14, 2006 in Lake Placid, NY. The local host will coordinate to ensure that the LFC program is distinct from AFS proceedings. Details: www.larvalfishcon.org/Conf_home.asp?ConferenceCode=30th

National Awards

National Wetlands Awards Program

Each year the environmental community comes together to honor individuals who have dedicated their time and energy to protecting our nation's precious wetlands. The 2006 Awards will be given in six categories: Education and Outreach; Science Research; Conservation and Restoration; Landowner Stewardship; State, Tribal, and Local Program Development; and Wetland Community Leader. The National Wetlands Awards Program honors individuals from across the country demonstrating extraordinary effort, innovation, and excellence through programs or projects at the regional, state, or local level. Program co-sponsors- the Environmental Law Institute, U.S. Environmental Protection Agency, USDA Forest Service, U.S. Fish and Wildlife Service, NOAA Fisheries, Natural Resources Conservation Service, and Federal Highway Administration - believe that rewarding these efforts helps ensure that future generations will have quality wetlands, biological diversity, and clean water. Nomination forms for the 2006 National Wetlands Awards Program are now available. To download the nomination form, please visit: www.2eli.org/nwa/nwaprogram.htm. Deadline for nominations is **Dec. 15, 2005**. Organizations and federal employees are ineligible. For more info or questions about the National Wetlands Awards Program, please contact Jared Thompson; e-mail: wetlandsawards@eli.org; 202-939-3247.

President's Fishery Conservation Award

Presented in two categories: an AFS individual or unit; or a non-AFS individual or entity, for a singular accomplishment or long-term contribution that advances aquatic resource conservation at a regional or local level. A nomination should include a letter describing the contribution and evidence for accomplishment at a regional or local level. If the nomination is for an individual, include a CV. Nominations may be supported by multiple individuals by signing one nomination letter, or by submitting supporting letters in addition to the main letter. Include the nominee's title and full contact information. Deadline: May 5, 2006. Contact: Barbara A. Knuth: bak3@cornell.edu

William E. Ricker Resource Conservation Award

Presented to any entity for accomplishment or activity that advances aquatic resource conservation that is significant at a national or international level. A nomination package should include a letter describing the nominee accomplishments and the evidence for being significant at a national or international level. If the nomination is for an individual, include a CV. Nominations may be supported by multiple individuals by signing one nomination letter, or by submitting supporting letters in addition to the main letter. Include the nominee's title and full contact information. Deadline: May 5, 2006. Contact: Barbara A. Knuth, bak3@cornell.edu

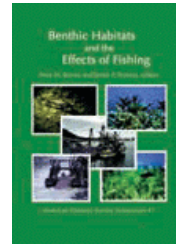
Retired Members Travel Award for the AFS Annual Meeting

The American Fisheries Society has established this travel award to encourage and enable members of AFS to attend annual meetings, particularly those members who might play a more active role in the meeting. AFS recognizes that some retired members who desire to participate in the annual meeting might be inhibited for financial reasons. This award is for those members who truly have a need for financial assistance. Your request for support is based on an honor system. You must be a dues paying retired member of AFS to apply. Up to \$1,500 for expenses. Contact: Barbara Knuth, bak3@cornell.edu

New Books!

Benthic Habitats and the Effects of Fishing

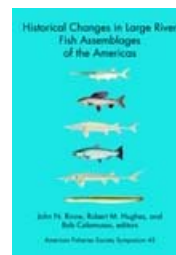
Peter W. Barnes and James P. Thomas, editors; September 2005; 890p; List Price: \$75; Member Price \$53



Fishery resource managers face the challenge of ensuring sustainable fisheries and maintaining healthy, diverse ecosystems. This challenge can be met by advancing the scientific knowledge available to resource managers to evaluate and appropriately manage fishing activities that affect benthic habitats. Government agencies have been working to develop benthic habitat research initiatives focused on the effects of fishing gear and the linkage between biological resources and the geology of benthic habitats. This book provides the broad understanding of the effects of fishing activities on benthic habitats necessary to address the pressing issues of habitat alteration that challenge managers, practitioners, and ocean scientists.

Historical Changes in Large River Fish Assemblages of the Americas

John N. Rinne, Robert M. Hughes, and Bob Calamusso, editors; September 2005; 612p; List Price: \$69; Member Price: \$48



Dramatic changes have occurred in the functioning of larger rivers because of social values and policies, land use, inchannel causes, and alien species. These changes have resulted in the reduction in range and abundance of many native fish species. This book describes the historical changes observed in the fish assemblages of 27 large rivers in North, Central, and South America. Highlights common and distinct patterns among the rivers and their stressors. The book focuses on entire fish assemblages. It is of interest to fishery biologists and aquatic ecologists concerned with the status and trends in biodiversity and biointegrity. Contains historical information as well as new research and monitoring results, including research on metapopulations, genetics, and life history strategies.

Notes From the Editor...

We would like to thank you for a great year! For those of you who contributed to the newsletter this year, we really appreciate all of the wonderful articles, photos and input. We couldn't have done it without you! We strongly encourage everyone to think about contributing to the newsletter next year. This is a vital part of our Chapter's communication.

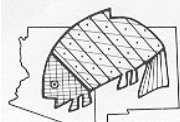
Thanks again!
~Your editors

Anne Kretschmann
AKretschmann@azgfd.gov
Marianne Meding
MMeding@azgfd.gov

AFS Arizona-New Mexico Chapter Officers

President	Paul Cassidy Aquatic Consultants, Inc. 4415 Hawkins St., NE Suite D Albuquerque, NM 87109 (505) 890-5753 paulcassidy@aquaticconsultants.com
President-Elect	Pam Sponholtz U.S. Fish and Wildlife Service P.O. Box 338 Flagstaff, AZ 86002 (928) 226-1289 pam_sponholtz@fws.gov
Secretary/ Treasurer	Pam Sponholtz U.S. Fish and Wildlife Service (928) 226-1289 pam_sponholtz@fws.gov
Past President	Scott Bryan Aquatic Consultants, Inc. 4415 Hawkins St., NE Suite D Albuquerque, NM 87109 (505) 890-5753 scottbryan@aquaticconsultants.com
Membership	Heidi Blasius Heidi_Blasius@blm.gov
Environmental Affairs	Scott Gurtin
Fundraising/Raffle	Jim Warnecke
Bylaws	Colleen Caldwell

Arizona-New Mexico Chapter



American Fisheries Society

Anne Kretschmann
Primary Newsletter Editor
AFS AZ/NM Chapter
Arizona Game & Fish
2221 W. Greenway Rd.
Phoenix, AZ 85023

Webpage

If you have any comments about the webpage or have items you would like to see on the webpage, please contact Pam Sponholtz at: pam_sponholtz@fws.gov or: Scott Rogers at: srogersagf@qwest.net

Visit our webpage at:

<http://www.fisheries.org/aznm>