Can't Keep It? Photograph It!

Robert Bock
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It's taken me a long time to realize it, but I can't keep every fish I catch. Sometimes it's tough just to keep the eight aquariums I have going—not to mention the little two-gallon window sill tanks housing assorted killies, *Elasmomya* and *Enneacanthus*. Recently, I learned that photographing a fish is almost as much fun as bringing it home.

A few months ago, I bought a small digital camera. I have a great time giving PowerPoint presentations about native fishes at local fish clubs. I thought the camera would be a great alternative to surfing the net for hours and emailing people for permission to use their work. Although the camera hasn't been much of a time saver, it has been a lot of fun.

Foremost, it's given me a reason to do what I'd probably do even if I didn't have a reason: go on a fish quest. I can't hide it—I love a quest. Studying maps, searching for locations, going on long drives into the countryside, finding some isolated little stream, and then netting out one of its more obscure inhabitants is something I can't resist.

My latest project is a slide show featuring all 32 members of the centrarchid family. So far, I've got usable shots of about a half dozen of its members. And I say "usable" because I've taken a lot of shots that just didn't come out right. True, digital photography is a lot easier for the uninitiated than old-fashioned film photography, but it still isn't easy.

From experience I can tell you that one thing that will greatly assist your digital photography efforts is to read the manual before you start taking pictures. That's not as easy as it sounds, though. The manual that came with my small camera is about 200 pages long, and it was tough to find the time to sit down and browse through it. Still, after taking 200 or so virtually worthless shots of the *Enneacanthus* sunfish in the snapping turtle tank at the Riverbanks Zoo in South Carolina, I did manage to make the time to browse through the manual.

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From watching photographer David Snell, however, I learned about the advantages of a photo tank. Whenever he's planning to take pictures of fish, Dave travels with a two-gallon tank. He's had a piece of glass cut to size, to fit inside the two-gallon, parallel to the front glass. He puts the fish in the photo tank and moves the piece of glass up to the tank's front panel, so that the fish is suspended between the two panes of glass.

I've found that most fish will drift toward the lower corners of the tank. Since I don't want a shot of the fish and the tank corner, I use a thin twig to position the fish toward the center. Behind the pane of glass, I put some dark gravel, a few rocks, and maybe some plants I find at the site. The result is a natural-looking shot of the fish in its environment.

I don't want to transport disease-causing microorganisms from one site to the next, so I sterilize the photo tank after each use with either laundry bleach or hydrogen peroxide.

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The Beginner's Bucket: The Case against Aquaponics by Richard M. Kline

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have been resolved, continuing development near Las Vegas, Nevada, has created more demand for groundwater near the refuge. Because much of the desert area receives less than 2.5 inches (10 cm) of rain annually, virtually all of the water at and around Ash Meadows is “fossil” water, or water that is believed to have entered the aquifer thousands of years ago. When it is extracted from the ground at a rate faster than rainfall enters the ground, less water bubbles up from the springs for the pupfish. What little water remains for the pupfish is being invaded by nonnative species. Some of these species, such as largemouth bass, bullfrogs, and crayfish, may prey on pupfish, while exotic fishes such as mosquito fish (*Gambusia affinis*) and sailfin mollies (*Poecilia latipinna*) may compete with the pupfish for space and food (and prey upon the baby pupfish “pups”). Invasive plants such as saltcedar (*Tamarix* spp.), an exotic plant from Asia and Europe, drain the springs with their thirsty roots and concentrate salts in their leaves, transforming valuable desert streams and ponds into dry, salty basins.

Over the past few years, however, the tide has turned in favor of these endangered pupfish. Vigilant volunteers and biologists from the U.S. Geological Survey’s Biological Resource Division, the Nevada Division of Wildlife, and the U.S. Fish and Wildlife Service have been removing exotic species and taking other actions to rehabilitate the spring habitats. As a result, the Service hopes to be able to propose delisting the Ash Meadows Amargosa pupfish and three Ash Meadows plants before long. With improvements in habitat and exotic species control, the future of some pupfish may no longer be going down the drain.

**Life on the Ledge**

The future of another Ash Meadows species, the Devils Hole pupfish, is still perched precariously upon a narrow ledge. Devils Hole, the only natural habitat for this pupfish, is akin to a community swimming pool with a shallow section and a deep end. The shallow “kiddie” section is a 10 by 20-foot (3 by 6-meter) limestone shelf 0.4-27 inches (1-70 cm) under water. Beyond the ledge lies a second, deeper shelf with a surface area of 10 by 33 feet (3 by 10 m). Past the second shelf lies the real deep end of Devils Hole, which extends to unknown, abyss-like depths. Divers from the U.S. Geological Survey once descended 300 feet (91 m) into the waters of Devils Hole but they never touched bottom.

Although Devils Hole pupfish have been found as deep as 80 feet (24 m), life for this species centers on the shallowest ledge, where the fish lay their eggs and feed on the algae that cover the shelf. The number of pupfish in Devils Hole fluctuates seasonally between 200 and 700 individuals.

In 1976, a Supreme Court decision stopped local pumping that was lowering the water table and threatening the Devils Hole pupfish. The Nature Conservancy purchased Ash Meadows in 1984 and later sold it to the Service to establish a National Wildlife Refuge. This protected the aquifer and ensures that the shallow ledge in Devils Hole, so vital to the pupfish, will not become a “sunbathing deck.”

Bock, “Can’t Keep It? Photograph It!” (cont. from page 35) take most of my shots in the field, I simply rely on the sun for lighting.

With outdoor shots, you need to be careful that your camera doesn’t pick up reflections from the glass. If you’re not careful, the camera’s lens or even your fingers will reflect off the tank glass and show up in the picture. By trial and error, you can compensate for this by varying the angle at which you take the picture. Take lots of shots, too, because reflections that you can’t see in the digital camera view screen might still show up in a few shots after you upload them to your computer.

One of the members of my local cichlid club also taught me another way around the reflection problem. He recommended taking a KFC bucket and painting the inside of it black. He then said to cut a hole in the bottom of the bucket, just large enough to fit the camera lens through. Instead of casting back the camera’s reflection, the glass will only throw back the black on the inside of the bucket, which the camera won’t pick up.

I can’t keep all the fish I catch, but I can keep a lot of images of them in my home computer. 📸

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**Fig. 1.**
A bluespotted sunfish (*Enneacanthus gloriosus*) photographed by the author. This fish was collected in Little Hunting Creek, a Potomac River tributary where snakeheads were captured recently.