



the
CRAYFISH TALE
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DO CRAYFISH HIBERNATE?

About one hundred miles north of Phoenix runs the rim with the funny name. The Mogollon Rim. About 20 miles north of Payson, I have often gone along the ruddy Rim Road to visit some of its many trout and crayfish laden lakes. Up at an elevation of 7000 feet, the weather differs much from that of the Phoenix Sun Valley at 1000 feet. But this did not occur to me until it started snowing that day in October when I was heading for Knoll Lake to catch crayfish for our dinner planned for my visiting Swedish nephew.

At Phoenix' elevation and balmy weather you tend to forget what a 6000 foot elevation difference can make. A strong storm had just passed over Arizona, but the rain in the valley was mostly welcome. But up along the Rim Road things were different. As I approached the lake a snow storm had intensified as we drove up to my ten collapsible crayfish traps thrown in from the lake's shore the day before.

I really had no business being up here at this time of year and in this weather. But enjoying the Valley balmy temperatures, you forget what difference 6000 feet can make. And the only reason I was up here was to catch enough crayfish to impress my nephew with the delightful

abundance the state of Arizona had to offer a crayfish lover from Sweden.

So my son Peter and I walked down to the edge of the lake to start pulling up the crayfish traps. But where were they? I had placed the traps along the shore with their wooden floats anchored with rocks at the edge of the lake the day before, but now they were nowhere to be seen. What had happened? Had someone sneaked in overnight and stolen my traps? Possible but not likely. Nobody in their right mind would drive all the way to Knoll Lake in this weather for either trout or crayfish. Except a crayfish crazed Swede.

Then it occurred to me that not only was it now snowing and sleeting. It also had rained heavily through the night, and like most lakes on the Rim, this lake was rather small. So a heavy rain could have affected the level of the lake. Right? Right.

As soon as the thought hit me, I started looking for the markers and strings to the submerged traps, and then I found them. They were all several feet out from the shore and under the water's surface. Obviously the heavy rain had raised the water level enough to hide all the floats.

So I pulled up my traps and was happy to find enough crayfish in them to be able to

serve a crayfish dinner for my visiting relative.

But later, another thought struck me. As it was obviously cold enough to snow, it must have been pretty cold, especially for crayfish. Crayfish do hibernate at low temperatures, don't they? Yes, that's what we have been told by so called experts in the field. Crayfish hibernate when the water temperature is below 45° F or thereabouts. So how come I was actually dumb enough to try to catch crayfish at 7000 foot elevation? Well, when you live down in balmy Phoenix, you don't always think rationally about what happens at the Mogollon Rim elevation.

Many years later I found out what crayfish really do when it gets cold. But first, let's analyze the concepts involved here. We use the term hibernation when it relates to bears and some other animals who go to 'bed' when winter threatens and who wake up when the sun warms up things. Sometimes with a pair of bear cubs joining their mother. The equivalent crayfish mother may emerge with a whole bunch of eggs like berries attached under her tail.

But some call this practice to go dormant. Or they may call it brumation, aestivation or even diapause. All these terms are related and by many considered synonymous. All they mean is that the organism has slowed down its activities to a state where metabolism virtually comes to a standstill, due in part, to low temperatures that slow most chemical activity.

The more I looked into this interesting situation, the more I realized that people use these terms synonymously assuming they mean about the same. But crayfish don't hibernate the way some animals do in winter. Bats, ground squirrels and other rodents, mouse lemurs, the European Hedgehog and other insectivores really hibernate with a metabolism that almost stands still. During the depth of winter, crayfishes are rarely to be seen about in a stream; but

they may be found in abundance in its banks, in natural crevices and in burrows which they dig for themselves. The burrows may be from a few inches to more than a yard deep, and it has been noticed that, if the waters are liable to freeze, the burrows are deeper and further from the surface than otherwise. Where the soil, through which a stream with crayfishes runs, is soft, the crayfishes work their way into it in all directions, and thousands of them, of all sizes, may be found, even at a considerable distance from the banks.

This explains why catching crayfish during winter weather only slows down the catches, but it won't prevent it wholly. I have often heard of people who were able to catch crayfish through the ice. But, of course, they seldom mention that their catches are generally rather skimpy.

Therefore, my experience and knowledge about crayfish hibernation, or the lack of it, tells me to wait in the spring with trying to catch my first loads of crustaceous eating. Up on my favorite crayfish grounds at 6000 to 8000 foot elevation, crayfish catches will undoubtedly be greater after the summer weather has heated up the lakes as much as they will ever go at that elevation. No wonder the high season for crayfish in Sweden is always August and September.

However, crayfish will also go 'dormant' in the opposite situation of either too high water temperature or even lack of water. During the season while the rice/crayfish fields in Louisiana are drained, the crayfish may have to go into some kind of dormancy until the paddies are refilled again so they can emerge from their yard long tunnels.

Fortunately the nicest summer weather temperatures go hand-in-hand with big crayfish catches, so that's the time of year you'll find me enjoying this hobby up in the Arizona mountains.

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