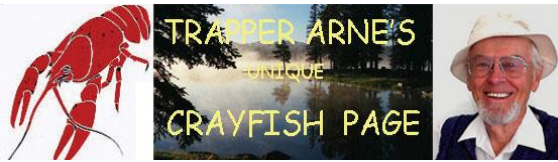


Trapper Arne's Crayfish Newsletter for

August 2013



the
CRAYFISH TALE

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THE AFRICAN CRAYFISH PUZZLE

If you study the distribution of crayfish on our earth, you often run into the statement that Africa does not have any crayfish.

That is a statement in need of qualification. When articles state that Africa has no crayfish, they should actually say that Africa does not have any NATIVE freshwater crayfish. Then the statement becomes true. Numerous scientists interested in the life of the freshwater crayfish have come to the unexpected conclusion that Africa, for reasons that are at best obscure, does not have the native crayfish which are so common in North America and Europe and many other places. But not in Africa.

But let's be a little more specific. There ARE freshwater crayfish in Africa today, but they are those species of crayfish which have been imported into the continent of Africa in modern times. Primarily crayfish from the US South have become imported into some areas of Africa, and they seem to prosper and multiply to the dismay of some Africans.

Strangely, the only part of the area in or around Africa that seems to have native crayfish is the nearby island of Madagascar. There crayfish appear to be precisely the species we find in Europe or even in America. And they are native to Madagascar but not to next-door Africa.

But why are there no native crayfish on the African continent? Interestingly, there are several theories for this unusual exception. Some experts in this field have come to the conclusion that we have to get into plate tectonics in order to understand why Africa has no native crayfish. And to get into plate tectonics we have to become awfully technical.

The shell of the earth that we consider home, and on which we can relatively safely walk, is just a few miles above a fiery mass of molten magma. And as this mass of flowing magma or molten lava is moving around inside the globe, much due to the rotation of the earth, it also affects the land masses above that we walk upon. Through some fantastic detective work in this realm, scientists have now been able to understand that, e.g. Africa and South America are continuously drifting slowly apart. And has been doing so since time immemorial. Involved in these theories about how the plates we walk on have been moving around also seems to explain why Africa never developed a stand of native crayfish contrary to the European and American continents.

But today the African crayfish situation is changing. Ever since the start of importation of Louisiana red swamp crawfish (*Procambarus clarki*) some areas of Africa are being infested with the US

crayfish which now act as invasive as ever. In typical situations, the imported crayfish have no or few predators, and thus they can freely indulge in the local richness of stuff a crayfish loves to eat, fish eggs, freshwater fish, mollusks, crustaceans, and aquatic plants. Many lakes and dams around Nairobi in Kenya have suffered noticeable damage due to this invasion. Interestingly, although Kenya in places is very warm, being near the equator, these imported crayfish don't seem to mind the warm climate. Some crayfish in Australia also seem to like warm climates although American and European crayfish often prefer moderate to cool climates.

Several countries in Africa have received imports of some of these invasive species and they are already widely distributed in lakes and other bodies of water throughout not only Kenya, but also in Rwanda, Uganda, Egypt, Zambia, the Seychelles, Mauritius, and South Africa. Conservationists are worried that these invasive crayfish will reach the East African lakes of Malawi, Tanganyika, and Victoria, which are the home for thousands of species found nowhere else on this earth.

Ironically, for me as a Swede at least, is the fact that some fisheries in Kenya were successful enough to be able to export some of their exploding crayfish populations to countries like Sweden. Swedes really don't care where crayfish come from - Louisiana, Kenya, China - as long as they look like and taste like crayfish.

Just like in the US, crayfish in Africa are spread by people using them as fishing bait and possibly for food, and often as specimens for aquariums. Louisiana crayfish can easily change or switch diets based on whatever food is available, from plankton to amphibians.

But there is much more to it. And it has to do with land crabs and their relationship with crayfish. It is not hard to understand that when two organisms occupy a similar ecological niche, it may easily become a matter of the survival of the fittest. If two organisms use the same resources of food, shelter, etc., so over time one is likely to be slightly better than the other at surviving and multiplying in that location. Eventually, one will outnumber and outcompete the other and only one species will continue in that location.

Freshwater crabs and crayfish are that kind of competitors. One theory simply assumes that when species of all kinds invaded Africa, the land crabs won competitively over the crayfish, and thus the continent became void of native crayfish. A case of competitive exclusion they call it.

It's interesting to note that in places where crayfish now have been introduced to Africa, they have no trouble competing with freshwater crabs, and in fact, may threaten local crabs with extinction.

Well, those are the theories. The fact remains, Africa has no native crayfish, but fortunately in my case, I chose to live in a country where crayfish are found in almost any trickle of water.

Email Address Moves

We have had address problems. All our customer addresses were moved from one email service to another recently causing an interruption of the series of newsletters. Should you notice any address problems, please notify me at my new email address: Trapperarne1@gmail.com

ARIZONA CRAWFISH FESTIVAL

On August 10, from noon to nine, at the BISON RANCH in OVERGAARD, Arizona will finally have another crayfish festival. Trapper Arne will of course be there, so come and join us for eating crayfish, watching all the fun AND BUYING CRAYFISH TRAPS. Come and meet Trapper Arne Jr and Sr.

CREDIT CARD READY

In time for the crayfish festival, Trapper Arne plans to be able to accept credit card purchases using our smart phone.

Greetings.

Trapper Arne

To read any or all of previous monthly newsletters or other articles about crayfish, click on www.trapperarne.com/articles.htm

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