THE ART IN FINDING NEW SPECIES - RUAHA NATIONAL PARK, TANZANIA

By
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Birding in Ruaha National Park is extremely interesting and rewarding. Ruaha is located in south-central Tanzania, a location that until recently has been difficult and expensive to get to. Due to its vast size, thanks to a massive extension to incorporate the Usangu wetlands, Ruaha has doubled from 10,200 to 20,220 sq.km. In addition to this, Ruaha is fortunate to be surrounded almost 360 degrees, by Game Reserves, plus west of these Reserves are yet more Forest Reserves, so the whole ecosystem, is a vast, virtually untouched, wilderness area of more than 45,000 sq. km.

The remote areas are difficult to access particularly during the wet season, therefore, little 'serious' birding has been done in these seldom visited places. Rob and I are both artists, Rob a sculptor and I am a painter, and in our spare time we are avid birders. We have been extremely privileged to have lived in Ruaha National Park for 17 years, during that time Rob compiled the official, Annotated Park Bird list, which now stands at 572 species. We have managed to pull up some very interesting records, two of them new species. Photo below, shows the Ruaha River in March towards the end of the rainy season.

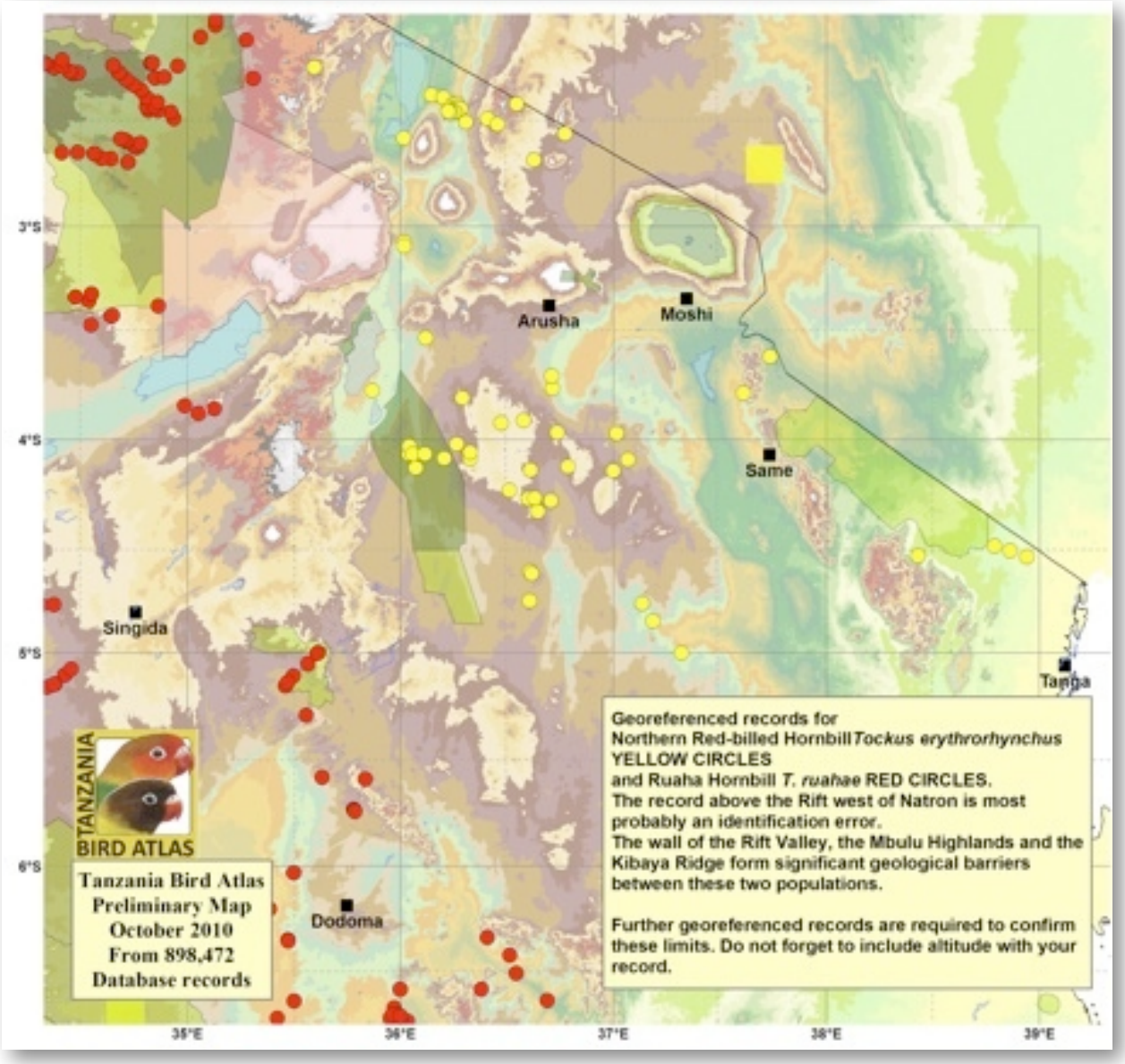
We first came to live in Ruaha National Park in June 1994. It was about a year after this that I decided to do a large water-colour painting of the Red-billed Hornbills that were so plentiful in the Park. I always work from life, so I set off one morning in search of these beautifully patterned birds, hoping to find some willing to pose for me for more than a few seconds! Sure enough, they were everywhere, and I stopped often to look carefully at the facial details, as this is always the most important part one needs to 'get right'. I became rather bemused as all the birds I stopped to look at had black grubby faces, and pale eyes, nothing like the cleaner looking Red-billed hornbills I had painted in Tarangire National Park, in northern Tanzania. Those had pink skin, dark eyes and plenty of white on the face.

At that time I was very much a 'novice' birder, I thought them to be young birds, so I decided to continue looking for the appropriate subject. Over the course of several days I never found what I was looking for, absolutely all the Hornbills I had observed over more than 600 sq km had black faces and pale eyes. On my return to camp I mentioned to Rob that there was something funny about the Hornbills here. " Oh nonsense" he replied, "these are all Red-billed Hornbills". To cut a long story short, it didn't take Rob long to agree with me. There was something different about the Hornbills in Ruaha. In the 1960's and early 1970's Rob did extensive collecting for various American museums, of birds, small mammals and bats all over Africa, so he was very familiar with the scientific side of birding. Thus, he began the process of collecting DNA samples, documenting the differences of our bird, and sent the whole lot down to Alan Kemp in South Africa. Alan, was by chance at that time, reviewing all the African Hornbills. In due course, we were told

that the DNA was indeed different, and that this was a ‘new species’ We, and the Park officials were thrilled and it was duly called, *Tockus Ruahae*, the Ruaha Red-billed Hornbill.
The extent and range of these birds is clearly indicated on the map, which was kindly supplied by Neil and Liz Baker, from their Tanzania Bird Atlas. (In Sinclair and Ryan, ‘Birds of Africa, South of the Sahara’, Second Edition, 2010, this bird has been erroneously named Tanzania Red-billed Hornbill, instead of the published name, Ruaha Red-billed Hornbill.)

The photo left clearly shows the black orbital skin and the pale eye, diagnostic for the Ruaha Hornbill. Photo kindly supplied by Andrew Molinaro.

The map below shows the range of the Ruaha Hornbill and the Red-billed Hornbill. Kindly supplied by Neil and Liz Baker.



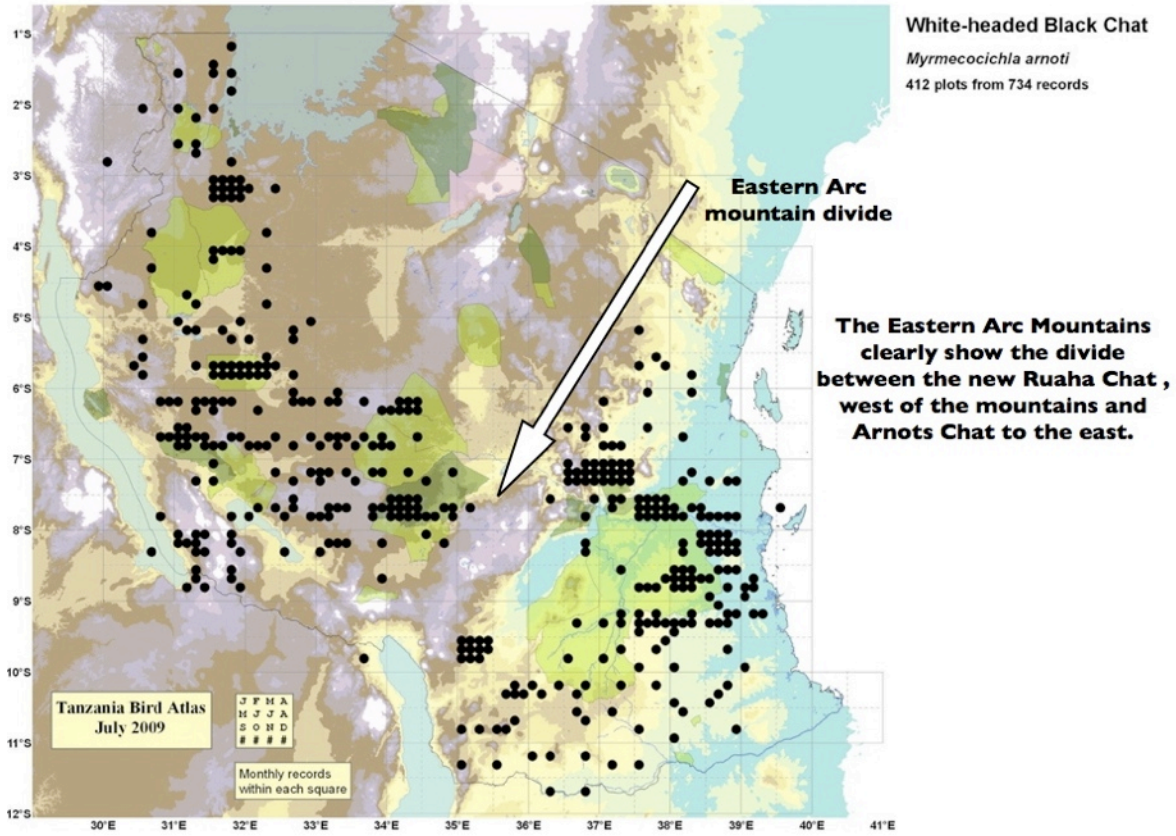
Shortly after the excitement of this had died down, Rob and I were enjoying a trip in a remote and unexplored, relic, highland forest, in the extreme western portion of the Ruaha Park. At 1,800 m this small forested area has proved to be most interesting for birds, which is another story altogether! However, in 2002, just as we were leaving this highland forest, to head back home to the lower Ruaha Valley, I spied a black and white bird that was hopping around, it looked similar to Arnots White-headed Black Chat, *(Pentholaea arnotti),* but this bird had a black cap and a complete white collar, encircling the neck. It flew off, and I couldn't locate it again to show Rob, I was very excited about my find, but we had to leave. So it would have to wait until we returned the following dry season.

In 2003, we returned, and set up our camp in a slightly different location. We were surprised and thrilled to find that we were right next to a nest that belonged to the black and white bird with the cap and collar that I had seen the previous trip. We were traveling with the Chief Park Warden, Mr Mtahiko and the chief ecologist, Gladis Ng'umbe, so we got the go-ahead to collect DNA samples. We also took loads of photos, and I did several paintings too. We all became very fond of this brave little bird who hopped around so happily, totally unfazed about us camping in her space. The nest was in a hole at the top of a 4 ft stump, which was located right amongst a busy area of camp activities, so we had fabulous viewing of our new bird! Again, Rob took charge of the scientific side of things and sent all our information to Dr. Rauri Bowie, in South Africa. Rauri was meticulous with his investigations and left no stone unturned, so we were kept on our toes. We travelled extensively in western Tanzania, looking to see the extent of this bird. We also had the support of Neil and Liz Baker, who are currently working on the Bird Atlas of Tanzania, and their support group added to the sightings. In the end, we found that its range began west of the Eastern Arc Mountains, south into Zambia and as far west as eastern Congo and Rwanda. Interestingly, the Eastern Arc Mountains provide the boundary between the Ruaha Chat and the nominate, Arnots White-headed Black Chat, *(Pentholaea arnotti),* east of these mountains you will only find Arnots White-headed Black Chat. (see map). Information was flying backwards and forwards by email and phone calls to Rauri, who had then moved to Berkeley University, California, to take up a professorship, lecturing in ornithology. Between us, we continued to compile more and more information. Finally, some 7 and a half years after I first saw our 'new' Chat, the paper has been accepted and we have yet another 'new' species. They have been called *Pentholaea collaris,* or the Ruaha Chat. The difference between this new bird and the Arnots white headed black chat is in the plumage of the female. The male however, is identical to Arnots White-headed Black Chat. (If anyone is looking up this bird in the second edition (2010) of Ryan and Sinclairs 'Birds of Africa, South of the Sahara', please note the Latin name therein is incorrect, also the picture depicts the plumage of a young female, who has not yet matured into the diagnostic, full white collar encircling the neck).

We would like to thank all the people who helped us on this journey of discovery, most of all we would like to thank the then, Chief Park Warden of Ruaha, Mr Mtahiko, who's enthusiasm and co-operation never wavered, plus Godwell Meing'ataki the Chief Park Ecologist and current acting Warden in Charge for his invaluable help. Dr. Rauri Bowie was fantastic, and we are really indebted to his hard work and enthusiasm for the project. We were delighted when after 8 years of knowing Rauri only through emails, we were able to meet face to face. We enjoyed very much having dinner together in our nearest town, Iringa. Needless to say, we had an awful lot to 'chat' about! The circle is now complete, but whose to say there aren't more surprises in store!

Photo left shows the adult female of the New Ruaha Chat. In some positions, the occipital feathers join the mantle breaking the white collar.

Overleaf is a map of the distribution of both the new Ruaha Chat and Arnots Chat. The Eastern Arc Mountains can clearly be seen to be the divide between the two species.
The Ruaha Chat to the west and Arnots to the east.
Map kindly supplied by Neil and LIz Baker.



In the western miombo area of Ruaha, we have noticed other exciting differences which may represent new species. A Weaver, a Tit, and seemingly a variation of the norm, in the Green-capped Eromomela. We are confident that the **White-tailed cisticola** yet to be named from Kilombero, in SE Tanzania, is also found here in isolated marsh situations. Further more, a **Crested Guineafowl** in Ruaha, which was originally thought to be *Guttera p pucherani*, but on our investigation, transpires to be the same as the original *Guttera pucherani granti,* named from one specimen collected from Dodoma, in 1871 (Elliot), to the north of Ruaha. Mysteriously this race was dropped from all literature. This bird sports red on the face, and red under the chin with a broad, plain black collar. However, after our investigations, we found that this bird is certainly much more widespread than previously thought and is now known from Lake Manyara in the north, the Harar Hills and Bwi Hills (Pienaar Heights) between Babati and Kondoa, Ruaha National Park, the areas south of Ruaha, the Udzungwa National Park, and Mikumi National Park. We are, together with Don Turner, in the process of reinstating this bird to its original name.

Photo above shows the proposed *Guttera pucherani granti.* It is impossible to see the red under the chin unless in good light. Photo kindly supplied by Adam Kennedy.

Ruaha lies on the convergence zone of northern and southern flora and fauna, hence we have a wide and unusual variety of plants and animals. It follows then, that the birds should be as equally diverse and interesting.

Photos show how the vegetation ranges along the Ruaha valley, from open grassland, riverine habitat, to mixed *Combretum* woodland, areas of *Acacia* with masses of Baobabs (altitude generally 700m-1000m), plus,

photo above vast zones of *Brachystegia* woodland on the slightly higher escarpment (altitude 1200m-1800m).
photo left, the Isunkaviola hills (at 1,860 m) in the western portion of Ruaha, an ancient eroded plateau, carry two areas of *Drypetes* forest, situated on high ridges,
photo below. and one area of highland mixed, riverine forest in the Kilola Valley,

The recent expansion of Ruaha, comprises the Usangu plains and wetland. This is a fabulous new resource for the Park, encompassing a very large wetland area which is home to a vast array of waterbirds. During the breeding season thousands arrive here to breed and it is spectacular. The most exciting species in this location is the **Wattled crane**. The wetland is a fabulous compliment to the rest of Ruaha. Photo below shows the extensive Usangu wetland. (photo provided by Neil Baker)

It is a fascinating place to live, every day presents new excitements great and small. I keep detailed records of the birds, animals, weather and the vegetation, which are invaluable. Everyday we learn new things about our fabulous environment and how the birds, animals, trees, flowers, sunshine, rainfall, insects, etc. all depend on what everything else is doing, or not doing. Nothing can stand alone and nothing can be isolated from the whole. In short the 'big picture' is all important.

We are extremely privileged to be living in this Paradise. We would like to take this opportunity to thank Tanzania National Parks for their help and support, and to congratulate them on the excellent way they manage their Parks.

General Information

Whilst birding is good at all times the inclusion of migrant species would be from September to late May. There is only one rainy season, generally it begins in December and ends late March or mid April. During the rains the Park is very lush and green, with wonderful flowers and breeding birds, the Ruaha River looks superb too. In my view, April through to the end of June is an extremely beautiful time of year, especially for flowers and trees, though game viewing is not as rewarding as it is later in the dry season. From end of July the vegetation begins to dry, by September it looks very grey with little greenery, these drier months are however, a great time for game viewing. October and November tend to be very dry, and hot, but at all times Ruaha holds its own charm, and every season has its own particular magic. Most areas of the Park are accessible all year round, however, some of the more remote Miombo areas are difficult during the rainy season but are accessible from July to December.