

Super sandpipers in Zackenberg... ugebrev 3, 19. juni 2007

Everyone who has ever made a nice beach walk probably has seen those small white birds that quickly run back and forward near the tide line in front of the waves. Those birds are sanderlings and the reason why a team of Dutch ornithologists (Koos Dijksterhuis, Joop Jukema, Ingrid Tulp, Hans Schekkerman and I) spend the summer in Zackenberg. The birds that can be seen on European and even African beaches reproduce in the High Arctic. Sanderlings weigh just a bit more than 50 grams and make spectacularly long flights to the Arctic breeding grounds. In summer 2003, when we were here for research on a different Arctic sandpiper species, the red knot, we found that the tundra near Zackenberg station, especially the steep slopes of Aucellabjerget, harbours many pairs of sanderlings that were even much easier to find than the red knots. An interesting discovery was that some nests were brooded by both a male and a female, whereas other nests were incubated by only a male or a female. Wandering around on the slopes of Aucella in 2003 we often discussed why this was so, and how these observations should be interpreted.

I am now in the lucky position to have the opportunity to try to answer some of the questions regarding the breeding system of sanderling during the next three summers. So here I am again in Zackenberg! Some things changed since 2003. Amongst others a new, luxury accommodation has been built. And a lot of good things remained as well, such as the presence of nice and hard-working people of which some I first met in 2003.

What also is similar to my last stay in Zackenberg is the number of sanderlings and we are currently trying hard to find as many as possible nests for our research. The first clutches have now been completed and we managed to find two nests already. The first nest was found at an altitude of 400 meters on Aucellabjerget, the other at the base of the same mountain. Interestingly, the first nest seems to be taking care of by a male bird only, while we did catch both male and female on the second nest. We hope to find many more nests in the coming weeks and find out how many of them are incubated by both parents, a male or a female sanderling only. All birds will be marked with a small transponder that will be registered by a data logger that we put up near the nest. Thereby we hope to find out how much time male and female spend on the nest, and how much time birds leave the nests for a small insect and spider snack. The birds that have sole responsibility to breed a clutch have only limited opportunities to feed, as the eggs cool down quickly in the cold arctic environment, whereas those that share incubation duties have a more relaxed way of life. 'Relaxed' is relatively meant here, as these small birds have migrated thousands of kilometres to spend the summer in Zackenberg where they have only a short time to reproduce. Incubation occurs by continuously pumping heat into the four eggs that together almost weigh as much as the body mass of the female and are laid in a nest cup located just a few tens of centimetres above the permafrost. These birds are real super heroes!

We think that only birds in a good condition, in territories with lots of insects and that are not infected by parasites in the European or African wintering grounds have the possibility to raise a clutch on their own. Hopefully we will gain a lot of interesting information about these super sandpipers around Zackenberg. The Danish Polar Centre supports us very well in all kind of logistical ways so that we can do our work

here in optimal conditions. So we do not expect any problems and probably can tell much more about the family life of sanderlings in the next news letter in 2008 and 2009!

/Jeroen Reneerkens