

Interview: Theunis Piersma



Theunis Piersma's work on understanding the ecology of migratory waders has taken him from the Netherlands to Mauritania and from Australia to China

Vogelbescherming Nederland (VBN, BirdLife in The Netherlands) and WWF-Netherlands are funding a new chair in migratory bird ecology at the University of Groningen. The chair is held by Professor Theunis Piersma, a world authority on the ecology of migratory birds and especially Red Knots. Professor Piersma and his team at Groningen are part of the Global Flyway Network (GFN), an alliance of wader research groups from all over the world. VBN has supported the work of the GFN since 2007.

Martin Fowlie talked to Professor Piersma about his work.

WBW: What sparked your interest in migratory birds?

Theunis Piersma: I decided at an early age that I wanted to become a marine biologist. I went to the University of Groningen because it had strong links with the Netherlands Institute for Sea Research, where I also work. In my first year, I joined a group of people doing shorebirds counts. In the 70s there was very little knowledge of where migratory shorebirds went. We got in touch with a study group in the UK who had been to Banc d'Arguin in Mauretania, and decided we would also go there.

We came back from Banc d'Arguin with a count of 2.2 million shorebirds, more than double what we expected. We

were actually nervous that people wouldn't accept this figure, so we documented it all very carefully. That was about one-third of all the coastal shorebirds along the whole eastern-Atlantic flyway. Banc d'Arguin is a relatively small place, but it has a huge density of birds. What we have seen since is serious losses of these birds. The numbers have been reduced by at least half, and even the Dunlin has shown signs of decline in the last couple of years.

Wherever I've gone to study shorebirds I've found them in trouble. That's true in the Wadden Sea in the Netherlands, and it's true in north-west Australia.

In the past we had big problems in the Wadden Sea

with mechanical dredging and the downstream effects on food supplies for migratory birds. But right now it seems that the problem is in Banc d'Arguin again. We think that maybe, at the moment, there is a lack of high quality food for wintering Red Knot in Mauritania.

What has the funding from VBN and WWF enabled you to do?

Very often problems with migratory birds have to do with what humans are doing. But where exactly is it happening in the flyway? That can change quite rapidly, and you can only find out these things if you keep up programmes of observations for long enough periods. And that's exactly what we try to do with this

consortium that VBN and WWF are helping with.

VBN wanted to help our work on shorebird migration, and I told them that while we have no problems in doing these things in the Netherlands, and not even along the flyway in Mauritania, there are real problems with shorebirds in South America, and people in Argentina can't get any funding. The other place where there was a real need was north Australia. VBN helped out, paying for Patricia González in Argentina and Chris Hassell in Australia to work full-time.

But I also found myself in a hopeless situation because I already had two jobs, and the work in West Africa and the Netherlands, and the conservation organisations were saying they wanted more of my time, more time in China, Australia, etcetera. So I went to VBN and WWF and said, "if you think my work is relevant, I think you have a role to play to help me out, as I just can't keep it up". They now fund two days of my week, which has been of huge importance and has freed me to do the flyways work.

What have you been doing in the Yellow sea and in particular Bohai Bay?

Basically all the birds that winter in Broome, north-west Australia, where we have been monitoring for some time, end up in Bohai Bay, China during their stopover in May. We had a chance to look at the birds during their northward migration and study their feeding ecology. What we discovered is that the place is under huge threat, probably one of the biggest conservation problems in the world. That's one of the reasons why I was desperate to start a decent demography programme in north Australia, and now, seven years later, we can measure what is going on in Asia too.

Over the last two years we have documented incredible increases in mortality rates when birds are away from Australia. Probably the losses occur after

staging in the Yellow Sea, which is exactly what you'd expect, as they aren't able to feed effectively as they move north due to disappearing habitat and disturbance. But still, seeing the graphs documenting this were a shock. This is not only true for Red Knot, but also for Great Knots and Bar-tailed Godwits, even though they use different parts of the Yellow Sea, and breed in different areas.

Having indisputable evidence documenting what is going on is extremely important—that is our trade, of course. The next step is for conservation organisations such as the BirdLife Partnership and other aspects of civil society to run with it. What we have done so far is to start raising awareness. We organised three public meetings, two around Bohai, one in Beijing, where we presented our insights on the importance of this part of the Yellow Sea, and the threats. And then you find that, while there is a lot of concern and common sense, there are big economic incentives to continue the reclamations, whether the reclaimed areas are well-used or not. This is not necessarily the best thing for the whole Chinese nation. We've compiled the evidence, and then we need civil

society worldwide to make a case. But it's up to the Chinese to decide what they will do, of course.

Are things changing in China?

It's clear that they are. The Chinese put a lot of value on the quality of the science. We have seen exactly the same with birds here in the Netherlands. If you have the evidence on board, the discussion changes to "What can we do to get these birds back again?" I think that's where we can make the biggest contribution.

What similarities and differences have you found in the way birds use the African-Eurasian, Americas and East Asian-Australasian flyways?

There are distinctive differences but I would emphasise the similarities. One of the fantastic things now is that we are building on one-and-a-half decades-worth of work on several different flyways looking at detailed demography. You can look at what you have learned from one flyway, and use it help another.

Right now we are testing satellite tags on birds in the Wadden Sea for applications along the East Asian-Australasian Flyway. We now

need BirdLife and WWF to do a big outreach programme with the results of this satellite tagging campaign over the East Asian-Australasian Flyway, to publicise to the general public in China, Korea and other Asian countries to take much greater care.

What are you most proud of?

The change we made possible in the management of the Wadden Sea is what I'm really proud of right now. Simplified, it was a chain reaction that started with scientific proof that the use of the Wadden Sea was absolutely not sustainable. It was then nature organisations that lobbied for better policies and regulations. When the response to that was not sufficient, it became a legal issue. It took a very long time but in the end VBN's appeal to the European court was successful. This clearly shows that scientific knowledge is indispensable for nature conservation. The whole attitude towards the management of mudflats is different now, and I think we had a lot to do with that change. But I hope that one day I'll be able to be really proud of what happened for conservation in the Yellow Sea.

WB

Piersma has studied Red Knot on all three of the world's major flyways: the Americas, the African-Eurasian and more recently the East Asian-Australasian (USFWS)

