

## University of Groningen

### Habitat use by a threatened long-distance migrant, the Black-tailed Godwit *Limosa limosa*, at Doñana NP Wetland during the non-breeding period September 2013 - February 2014

Hooijmeijer, Jos; Verhoeven, Mo; Algra, Hendriekus; Valkema, Haije; Faber, René; Altenburg, Jouke; Zijlstra, Libbe; Jager, Tom; Márquez Ferrando, Rocío; Piersma, Theunis

**IMPORTANT NOTE:** You are advised to consult the publisher's version (publisher's PDF) if you wish to cite from it. Please check the document version below.

#### *Document Version*

Publisher's PDF, also known as Version of record

*Publication date:*  
2014

[Link to publication in University of Groningen/UMCG research database](#)

#### *Citation for published version (APA):*

Hooijmeijer, J., Verhoeven, M., Algra, H., Valkema, H., Faber, R., Altenburg, J., Zijlstra, L., Jager, T., Márquez Ferrando, R., & Piersma, T. (2014). *Habitat use by a threatened long-distance migrant, the Black-tailed Godwit *Limosa limosa*, at Doñana NP Wetland during the non-breeding period September 2013 - February 2014: Mission Report of ExPeer Project P63*. University of Groningen.

#### **Copyright**

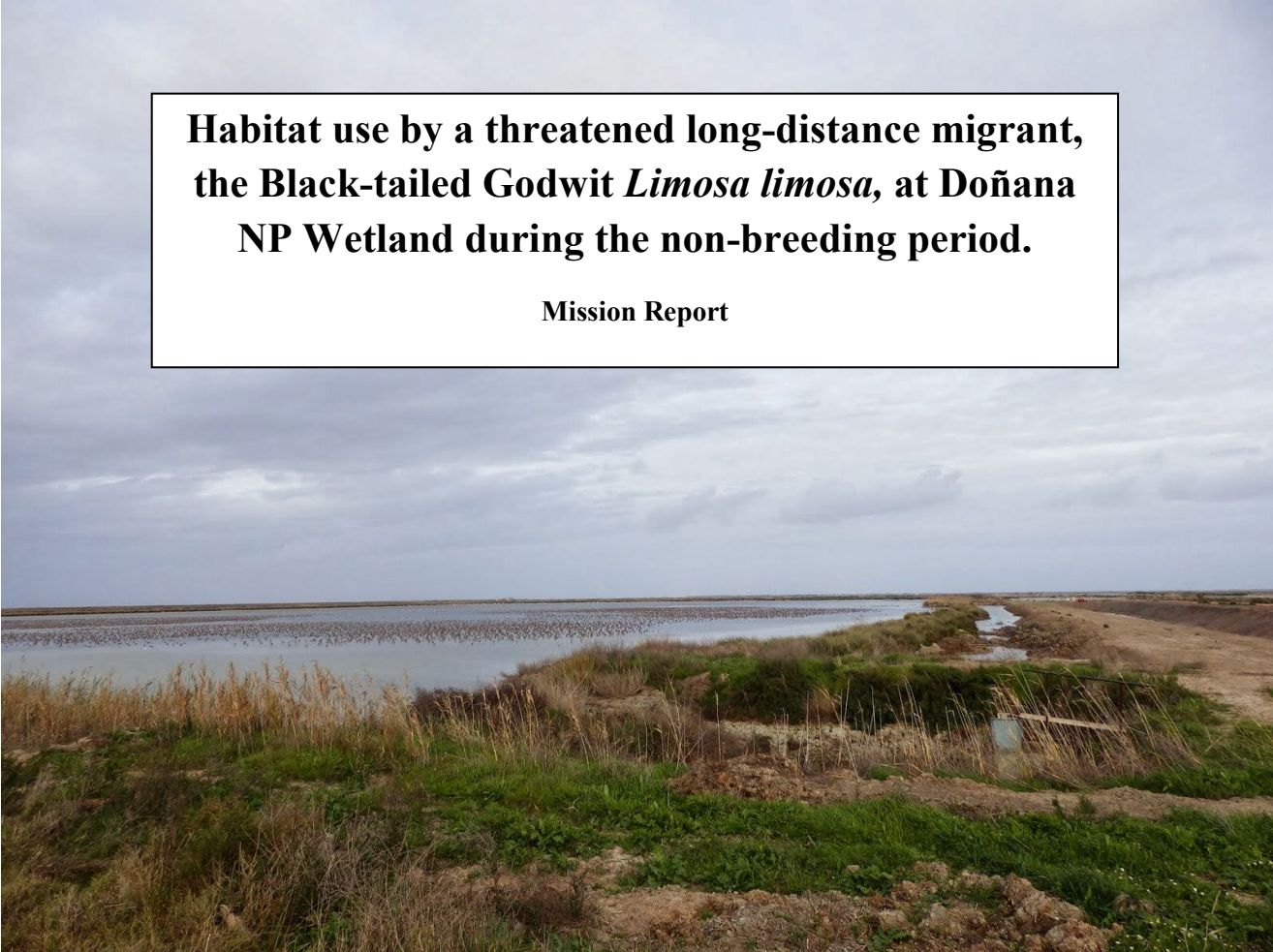
Other than for strictly personal use, it is not permitted to download or to forward/distribute the text or part of it without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license (like Creative Commons).

The publication may also be distributed here under the terms of Article 25fa of the Dutch Copyright Act, indicated by the "Taverne" license. More information can be found on the University of Groningen website: <https://www.rug.nl/library/open-access/self-archiving-pure/taverne-amendment>.

#### **Take-down policy**

If you believe that this document breaches copyright please contact us providing details, and we will remove access to the work immediately and investigate your claim.

*Downloaded from the University of Groningen/UMCG research database (Pure): <http://www.rug.nl/research/portal>. For technical reasons the number of authors shown on this cover page is limited to 10 maximum.*



**Habitat use by a threatened long-distance migrant,  
the Black-tailed Godwit *Limosa limosa*, at Doñana  
NP Wetland during the non-breeding period.**

**Mission Report**

**Mission Report of ExPeer Project P63**

**September 2013 – February 2014**

**Jos Hooijmeijer (ed.)**

**René Faber**

**Mo Verhoeven**

**Jouke Altenburg**

**Hendriekus Algra**

**Libbe Zijlstra**

**Haije Valkema**

**Rocío Márquez Ferrando**

**Tom Jager**

**Theunis Piersma**

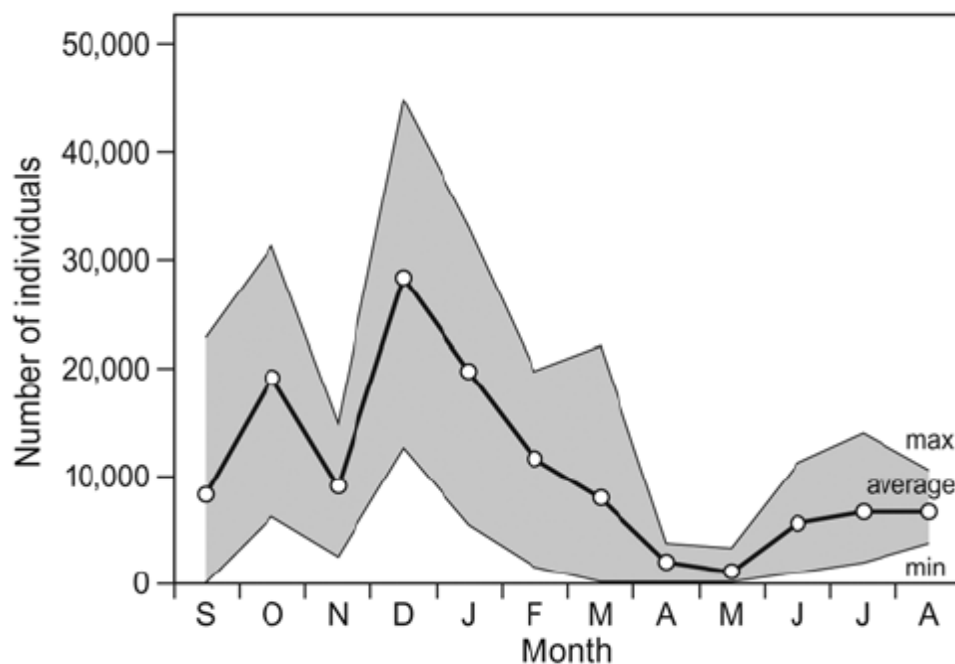
**Photographs from the authors ©**

**University of Groningen, Groningen, The Netherlands and**

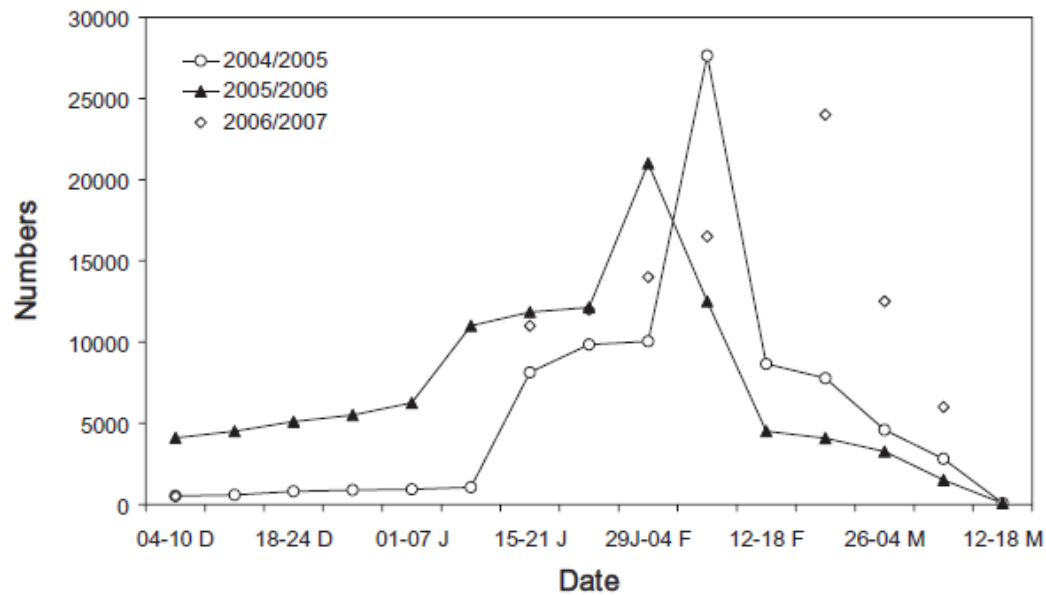
**Estación Biológica Doñana, CSIC, Sevilla, Spain**

## General Introduction

After their breeding season, Black-tailed Godwits (*Limosa limosa*) migrate in late spring and early summer to West-Africa where they winter (Zwarts *et al.* 2009). They can reach these wintering grounds non-stop or make a stopover in France or Spain but some birds stay in southern Iberia all winter, as we have learned from recent satellite telemetry data and these observations were confirmed during a survey in Doñana NP in November 2010. From half December onwards, the godwits leave West-Africa to their stopover areas in southern Iberia. Large numbers of godwits are found during the stopover period in three main areas: Doñana NP and Extremadura in Spain and the rice fields surrounding the Tejo and Sado estuaries near Lisbon in Portugal. Relatively little is known about the wetlands along the Spanish eastern coastline like the Ebro delta or Albufera NP near Valencia. Numbers can be as high as 45.000 in Doñana (Marquez-Ferrando *et al.* 2011), 24.000 in Extremadura (Masero *et al.* 2010) and 44.000 in Portugal (Lourenço *et al.* 2010).

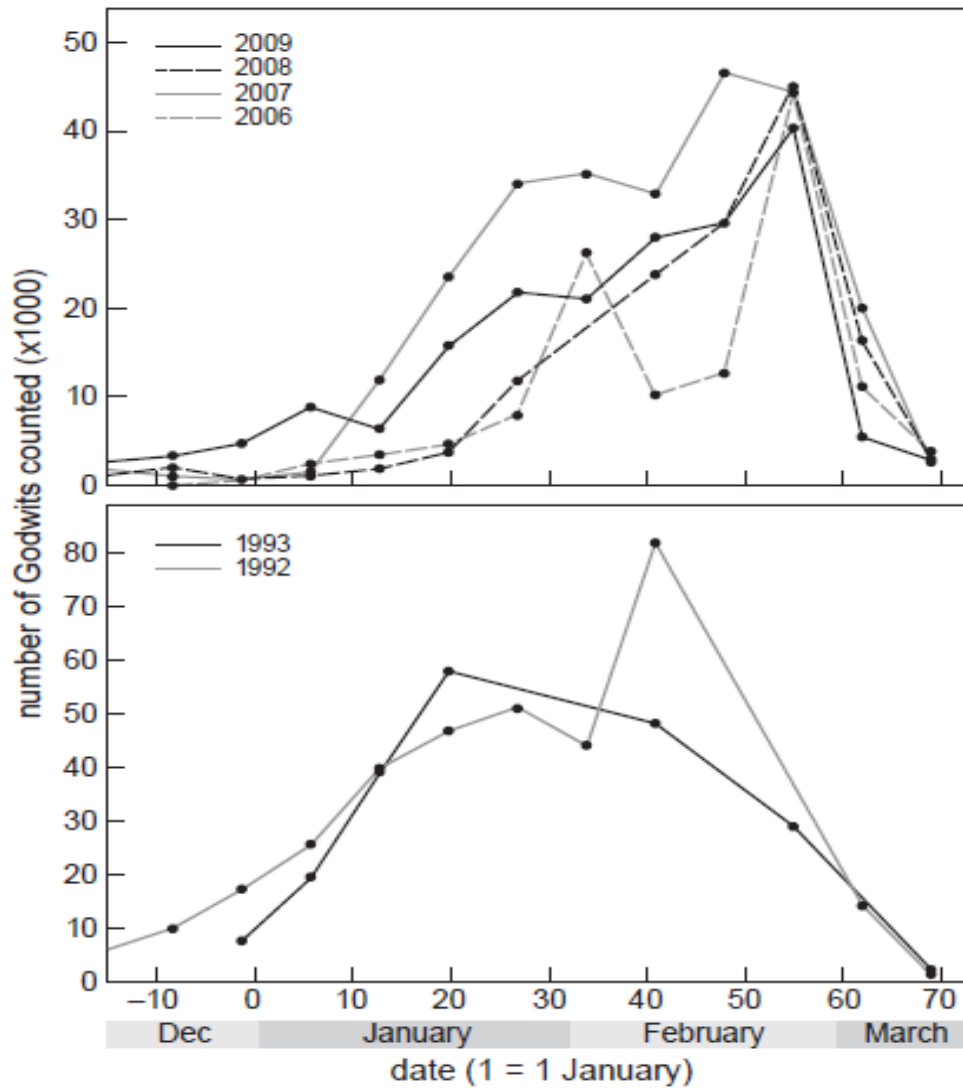


**Fig. 3.** Monthly counts of Black-tailed Godwits carried out by Estación Biológica de Doñana in Doñana Natural Park, SW Spain, during 2004-2010 (Marquez-Ferrando *et al.* 2011).  
2004–2010 ([www-rbd.ebd.csic.es/Seguimiento/mediobiologico.htm](http://www-rbd.ebd.csic.es/Seguimiento/mediobiologico.htm)).



*Black-tailed Godwit numbers in Extremadura rice fields. Data are weekly counts of the entire study area, except winter 2006/ 2007 (counts in the roosting sites at sunset). (Masero et al. 2010).*

In Doñana NP godwits are surveyed year round nowadays since Rocio Marquez-Ferrando has started in 2011 a postdoc research project on godwit staging and migration at the Estacion Biologica de Doñana in Sevilla. This offers a great opportunity to learn more about the importance of this area for wintering and staging godwits and the connectivity between the 3 main staging sites in southern Iberia. She has already clearly shown that godwits of the *limosa* subspecies winter in considerable numbers in this important wetland. In dry winters like 2011-2012, these birds were predominantly found in Veta La Palma, an extensive fish farm complex. The area is probably so attractive because it holds constant water levels and food resources, making it a predictable and therefore favorable location for birds that prefer to spend the winter in a part of Europe, where precipitation amounts differ a lot between years.



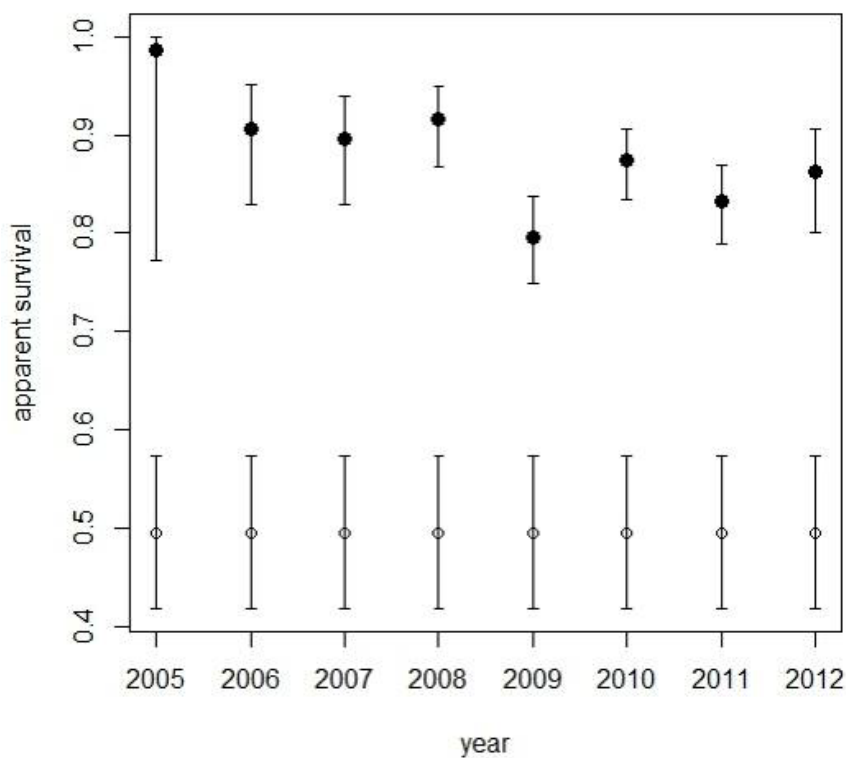
Total counts of Black-tailed Godwits in Portuguese (Tejo and Sado) rice fields in 2006-2009 and 1992-1993 (Lourenço *et al.* 2010).

In the rice fields they forage on rice kernels which are spilled during harvesting of the crop (Lourenço *et al.* 2008). Since 2005 yearly expeditions have been made to Spain and Portugal during this stopover period to sight colour-marked Black-tailed Godwits (fig 1.).

Godwits are declining rapidly in numbers (Birdlife International 2009), mainly caused by intensified use of agricultural grasslands in their breeding area (Vickery *et al.* 2001, Schekkerman 2008). To understand more about the effect of the intensification of the agricultural landscape on the godwit population, we started in 2007 a large-scale research project on the demographical variables and site

faithfulness of godwits in intensively and extensively managed agricultural land. Therefore we measure annual survival of young and adult birds (fig. 2), their reproduction and locate the nests during the breeding season in The Netherlands. With this information we can decide which areas act as source areas and which as sink areas. We color mark birds to make them individually recognizable.

Resighting color marked birds during the stopover period is necessary for several reasons. Firstly, if a godwit disperses outside our study area, the chance that it will be resighted elsewhere in The Netherlands is small. Without the resightings in the stopover area, we would assume that this individual is dead and therefore underestimate annual survival. Secondly, with enough resightings in the Iberian Peninsula we can calculate seasonal survival. In other words, we can calculate in which period mortalities occur more often. Thirdly, by measuring the density of individuals with colour marks, we can monitor the population size of the western part of the Black-tailed Godwit population. Lourenço et al (2010) estimated this population to be 135.000 – 140.000 individuals in 2007-2009.



Annual survival of adult (black dots) and juvenile (white dots) Black-tailed Godwits between 2004 and 2012.

## Preliminary results from the field work in winter 2013-2014

### *Number of resightings*

Our efforts to see as many colour ringed birds as possible resulted in an overall total of 1414 sightings between September 2013 and February 2014 of the ringing scheme of The University of Groningen. Numbers were building up from 132 sightings in September to a fairly constant average of 256 sightings /month in the consecutive months. Most birds were seen in Veta la Palma (88%), followed by Odiel NP (6%) and Algaida/ Bonanza salt pans (3%). Only a few birds were resighted in Lucio de Mari Lopez, a natural marshland within the borders of the Doñana NP. The frequency distribution of the number of resightings clearly mirrors the importance of the different locations for BT Godwits but is also dependent on the accessibility of the sites and the predictability to find them. Our efforts in the past winter to read as many colour rings as possible in late winter in South Iberia have generated an enormous dataset on staging Black-tailed Godwits. These data will be of great value to calculate annual and seasonal survival and dispersion of adult and juvenile birds in our study site in SW Friesland. And hopefully allows us to estimate differences in survival and breeding phenology/ success between birds that winter in S Iberia versus W Africa.

### *Numbers and habitat use in SW Spain*

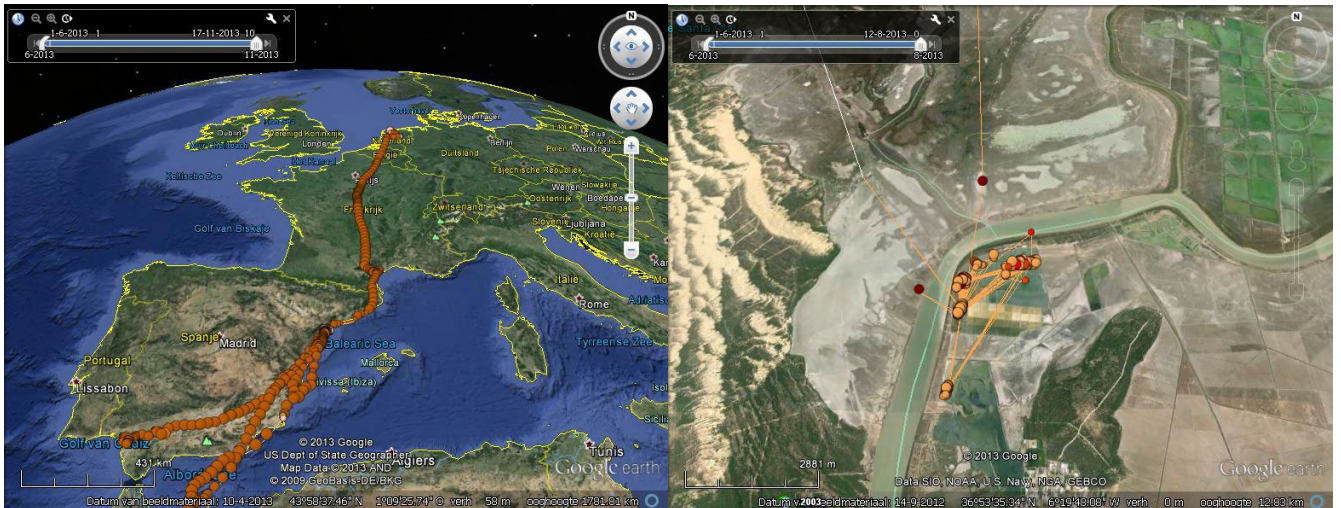
During our searches for ringed godwits we also made regular counts of the numbers present. From the table below a clear trend becomes apparent. In September only about 6000 birds are present in the 4 most important areas in SW Spain. Half of them can be found in the fish farm complex of Veta la Palma and the other half uses river estuaries, lagoons and salt pans. From October onwards total numbers increase but they are not equally divided over the different habitats: the numbers in Veta la Palma increase whereas they drop in other habitats. The increase coincides with the harvesting of the ricefields which clearly offers a good place for them to forage on during the night whereas they stay in the safe and restricted area of Veta la Palma during daytime (see below). This clearly shows the importance of these man-made habitats during the dry autumn and early winter. The rains started relatively late this winter and only in late January birds started to use the natural marshlands like Lucio de Mari Lopez. During the wet winter of 2012/2013 this Lucio was a key site for wintering Black-tailed Godwits.

	September	October	November	December	January	February
Bonanza/ Algaida	1400	520	400	0		
Odiel NP	1400	450		150		
Veta la Palma	3000	8000	14200	18500	20000	18000
Lucio de Mari Lopez	0	0	0	0	0	2000
Total	5800	8970	14900	18650	20000	20000

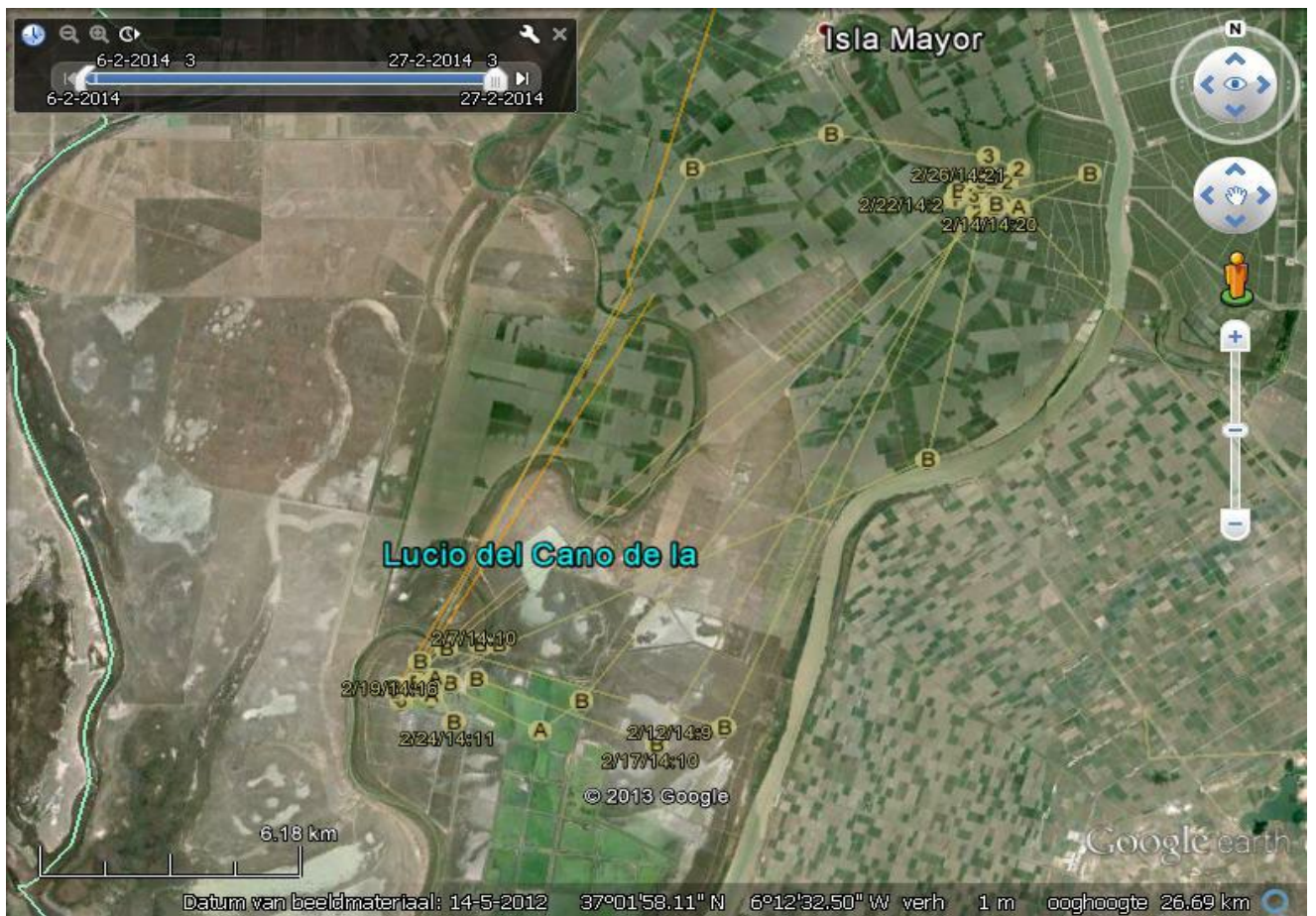
### *Data from the GPS-loggers and satellite transmitters*

During our visits, several Black-tailed Godwits with transmitters or loggers were present which gave us better insights in the way the birds use the entire study area. Two birds with UvA-bits GPS-loggers clearly showed what birds that winter in Doñana NP, do before they arrive there. One of them stayed till end October on the Spanish east coast before heading towards Doñana. Another bird stayed for quite some time in the Algaida salt pans before it moved to Veta la Palma. It also became clear from the satellite data that Veta la Palma is mainly used as a roosting site. After sunset the birds leave for the rice fields where they forage during the entire night, only arriving in the fishponds again around sunrise. This finally confirms what we have been suspecting for a long time but could never be proven. Most birds forage only briefly in Veta la Palma during daytime, especially in the early morning and late afternoon. Yet it remains unclear why they forage predominantly at night in the rice fields. In Extremadura and Portugal large flocks of foraging birds can be seen during daytime in this habitat.





Two travels of 2 UvA-bit GPS-logger birds from which the data were collected in Doñana NP. On the left the travels of bird 2010 that spent a lot of time on the Spanish east coast. On the right bird 2018 that used the Bonanza and Algaida salt pans in summer before moving on to Veta la Palma.



Satellite bird "Rotterdam" showing a very distinct daily rhythm: roosting at Veta la Palma during daytime and foraging at night in the rice fields SE of Isla Mayor.



## Doñana NP, Odiel NP, Bonanza/ Algaida, 10 – 17 September 2013

Jos Hooijmeijer

### 10 September 2013

Travelling from The Netherlands to Seville.

### 11 September 2013

In the morning we visited Dehesa de Abajo where we met the manager of the visitor centre, Sergio Gonzalez Asian. He contacted us because he had found a satellite transmitter of a Black-tailed Godwit. It was the transmitter of the bird Bordeaux, one of the birds that was deployed with a transmitter last February in Extremadura. The transmitter appears to be damaged but apparently still works. After that we scanned a flock of godwits in the lagoon and managed to read 1 colour ring in a group of 75 birds. We continued to Veta la Palma in the afternoon where we found about 1900 birds in 4 ponds and managed to read 10 different combinations. Birds seemed to be in perfect condition with several birds with an API of 4. During the day most birds were sleeping but in the evening they started foraging. We stayed till dusk but saw no birds arriving or leaving to a roost.



Odiel NP

### 12 September 2013

On our 2<sup>nd</sup> day in the field we headed south from Seville to Sanlucar de Barrameda. North of the city are two important wetlands: Monte Algaida and Bonanza salt pans. We found a group of about 1200 birds in the Algaida salt pans but because of the heatwaves and the fact that the birds were starting to roost, we managed to read only 2 complete ring combinations. We approached the birds from another direction past the salt pan company office. Here we found another 100 birds and read one ring combination. We found the main roost in the northernmost abandoned salt pan on the outer

boundary of the area. But the birds were still roosting in deep water. Therefore we left the area and visited Bonanza. There were no birds in the pans near the entrance but we found a remote group of 200 birds in the big new northern saltpans. These were impossible to approach. By that time it was already 18: and we decided to give the roosting group of Algaida another try. With perfect light from behind and active foraging groups we managed to read another 10 combinations. Like yesterday were the last hours of daylight the most productive: active birds and good light conditions. Again we had the impression that the birds were roosting and foraging in the same area.

### **13 September 2013**

Today we visited Odiel Reserve near Huelva. This area with many saltpans is mainly used as a hightide roost. When we arrived there was a group of approximately 1000 birds present. We did a tour through the marshlands but found no other groups. In the meantime about half the group had already left the roost and probably found some exposed mudflats close to the river. In the remaining group we found two ringed birds and a third bird on the mudflats nearby. On our way to Huelva we found two more birds on the mudflats underneath the bridge over the Rio Odiel. Three birds were also seen here last year and are a good example of site faithfulness.

One of the birds with a satellite transmitter is staying for several months in this area and most recently on the banks of the Rio Tinto. We found the exact spot and saw a group of 150 birds but they were too far out to be sure if the satellite bird was amongst them. We had some time left and went west again to Ayamonte on the border with Portugal where we checked several potentially suitable places but only found a small flock near Isla del Moral and about 100 birds in some old saltpans just east of Isla Christina. The birds that spend the winter in these riverine habitats much more difficult to detect because they spread out over a vast area that is hard to be searched completely.

### **14 September 2013**

In the morning we had to do some administration of the work of the past days. We arrive home every day quite late and we were a bit behind. In the afternoon we searched the Algaida saltpans again and found about 1380 birds. We read several ring combinations but not many new ones: most were also seen 2 days ago but it was good to have them confirmed again. It was striking to see one of the birds roosting on exactly the same square meter ! On our way out a guard of the saltpans wanted to see our permission and kindly asked if we could bring next time also a permit of the salt company and not only the one of the Nature Reserve that was provided by the EBD.

### **15 September 2013**

In the morning we visited Dehesa de Abajo but the 100 birds that were present, were on the other side of the lagoon and mainly resting. Therefore we left soon for our second visit to Veta la Palma where we met Petra de Goeij and Rocio Marquez. Before lunch we explored the area to find out where the birds were roosting. The A2, B2 and C4 ponds held more than 3000 birds. With perfect afternoon and evening light we finished the day with more than 20 different ring combinations. It was interesting to see the difference in feeding behavior in the different ponds. In C4 they seemed to forage on eyesight whereas in A2 and B2 they were just probing intensively. Anyway, foraging seems to be restricted to the early morning and late afternoon hours. Between 11 and 16 almost all birds are just resting in big flocks that spread out to forage closeby.

### **16 September 2013**

Our second visit to Odiel was quite successful. We arrived 2 hours before high tide and found a flock of 1400 birds at the roost. Some of them were still foraging but most were sleeping or preening. We could see that there were at least 10 colour ringed birds in this flock but most of them were standing on one leg. We waited for low tide but today the tide was very high and it lasted till 17:00 before the

birds started moving again. This gave us the opportunity to check more birds and we managed to read at least 14 different combinations before the birds left to forage on the mudflats along the river. The rings were all very clean without any staining and a lot of birds turned out to be very faithful to this site and were seen in previous years.



Foraging BT-Godwits at Odiel NP during high tide

### **17 September 2013**

On our last day we explored the Cadiz Bay area. We found no birds in Puerta Real (salina Victoria del Trocadero) or at San Fernando (salina Tres Amigos) but we ran into a group of 200 individuals near Chiclana de la Frontera (salina San Frederico). In this group were 2 birds from French and German programs. We had hoped for more birds unfortunately we did not find them in this vast area with lots of potential foraging places.

## **Doñana NP, Odiel NP, Bonanza/ Algaida, 22 – 29 October 2013**

Mo Verhoeven

### **22-10 Arrival in Sevilla and the Dehesa the Abbajo**

Hendriekus picked me up at the airport and after getting settled in Sevilla. We went to the Dehesa de Abajo, an hour southwest of Sevilla, to do re-sightings of colour-banded black-tailed godwits (*Limosa limosa*). Here we encountered a flock of 250 godwits. We found two colour-banded birds in this flock, one adult and one juvenile from our study site in Fryslân.

### **23-10 Veta La palma**

Today's program was the Veta La Palma fish-farm located approximately 5 kilometres south of the city of Isla Mayor. The fish-farm is build next to the busy Guadalquivir river which is the main entry point for all shipping into Sevilla and southern Spain. The farm consists of a variety of fish ponds with different depths, salinities and resource availabilities. This is done in order to cultivate different fish species. The day itself was perfect for ring-reading: good light, no wind and the birds were standing in shallow water. There were just the flies and the smell of fish pond to complain about. We read some colour-bands in the morning in a flock of 6000 birds, but eventually they were sleeping and we weren't adding any new colour-bands to the total. So we started searching for more godwits, walking from pond to pond, this resulted in 500 more birds in 5 hours of exploring, 3 of them had colour-bands. When we returned to this morning's flock, the birds had become active, preening and foraging. It was around 1900 p.m. and the birds were leaving in groups of 300-500 to an unknown roost-site. A last hour of "mad"-scanning in fading light added 40 extra colour-bands, pushing our daily total over 70!

### **24-10 The southwest**

In the morning we crossed the Guadalquivir going west, heading for the saltpans in Odiel. Having arrived there, we saw a flock of 400 birds, but they left the site before we could get close enough to attempt reading their colour-bands. In a different saltpan we found 40 birds and one with colour-band. The next couple hours we searched the banks of the Odiel estuary, this was with little success as we found 17 more birds. This was a disappointing start of the day and left us with a lot of time to explore more regions. At first we went to El Rocio, the laguna close to this village is known to have wintering godwits when it is flooded, it had rained a lot in the previous days so we gave it a shot. There were no birds at all! Being in a explorative-mode of visiting all places with standing water, we moved on to the Jose Valverde visitor centre in the National Park, but no godwits here. From here we turned back north in the direction of Sevilla, with a planned stop at the Dehesa de Abajo. The wetland at the Dehesa was full of birds, but none of them were godwits. Our spirits were down and we had travelled a lot. We were ready to make our way home and call it a day, but decided to make a quick visit to Veta La Palma. Here the flock had grown a little since yesterday to 7000 birds and we read over 80 colour-bands from 7 different schemes from all around western Europe.

### **25-10 The southeast**

We left in the direction of Cadiz on our way to La Algaida and the Bonanza saltpans. Soon we found a flock of 200 godwits, but did not see any colour-bands. We parked the car in the back of the saltpan complex and explored adjacent marshlands. This was without result. After returning to the car and eating lunch we moved to the fish-farm north of the saltpans. Here we saw a foraging flock of 320 godwits in shallow water, so we had good hope of finding some colour-bands. Unfortunately we had no access to the fish-farm. However, we tried accessing it on foot from the adjacent saltpans, but never got close enough to read colour-bands. We did not find any other godwits in the area and this meant we had to go home without reading a single colour-band today, not a great day!



Trying to connect to a bird with a GPS-logger

### **26-10 Let's go even further west!**

This spring our project has outfitted 15 godwits with satellite transmitters, 2 of these birds are now in Spain and our plan for the day was to visit their wintering locations in the hope to see more godwits and have a look at "our" birds. This meant we left early to Isla Christina, this to make sure we were there during high tide which would give us a higher chance of finding the godwits in flocks. For the past 2 weeks the godwit named "Brussel" had moved east and west of the main road entering Isla Christina. The latest signal had come from the eastern side so this is where we went first. We found a little pond with a lot of garbage in it, but also a lot of shorebirds; 11 different species! Among these shorebirds were a 30 odd godwits and one had colour-bands from a British scheme. We did not see Brussel and decided to go west of the road, here we saw a flying flock of 50 godwits. We were never able to get close to them, the pond they were in was in the middle of the Marismas de Isla Christina. And when we tried accessing that pond through a salt pond on the other side of the marismas the Police showed up, so we turned around and moved on to the next location. Later that day, back at our home, we looked at today's location of Brussel and it was in that exact spot! Two deserted salt pans to the southeast of Isla Christina yielded another 30 birds, but no colour-bands. Next up was El Rompido and the estuary of the river Piedras. This estuary was similar to the ones we had been visiting today and the previous days, but there was no life at all. We could leave here very fast indeed. Third stop was the estuary of the river Odiel, where we had been 2 days ago. There were 25 birds under the bridge going into Huelva, but no colour-banded individuals among them. We went to Moguer where there is a private bridge over the river, one of our satellite birds had been here a week ago. We scanned for birds, but didn't see anything besides a cormorant. Our last location for



today were the Gigantica ricefields, just south of Isla Mayor. The rice harvest has started a week ago and it is often suggested that the godwits move into the ploughed rice-fields when they become available. Some tricky roads and good driving skills from Hendriekus, got us to all ploughed fields. We saw huge quantities of Lesser Black-backed Gulls, Cattle Egrets, Glossy Ibis and White Stork, but no godwits. This was again the end of a disappointing day, with one colour-band only slightly better than yesterday.

### **27-10 The Turnaround**

After three days of looking for godwits throughout south-eastern Spain. Visiting nearly every estuary, salt pond and fish farm between Ayamonte in the west and Cadiz in the east. We knew that the place to be was Veta La Palma. We arrived here in late morning and did a full survey of the fish farm. We found small flocks of 200 to 300 birds in ponds scattered all over the complex, and there was the big flock that now consisted of more than 8000 birds. We read colour-bands in the small groups throughout the majority of the day, among one of them was "Nantes" a bird carrying one of our satellite-transmitters, she looked in good health! By the end of the day we went to the big flock in the pond named "A1". Hendriekus and I positioned ourselves on both sides of the flock and started to re-sight colour-banded individuals. After a while I came across Y4BYRR, which I knew was of our birds carrying a GPS-Logger. It connected to our antenna-system and we downloaded the data on the tag. In the meantime we were still reading bands and after an hour or so, I heard something to my side and looked for Hendriekus, but saw 4 wild boars less than a meter away. I guess I must have been pretty occupied doing re-sightings not noticing the boars earlier. So the day ended on an adrenaline high with a re-sighting of a satellite-transmitter, a downloaded GPS-logger, a lot of re-sightings and 4 wild boars!

### **28-10 Finishing strong**

We went to the research centre of the EBD (Estacion Biologica Doñana) in the morning to talk with the professor that developed the GPS-loggers. He told us one of the solar-panels of the downloaded logger was broken and that if possible we should re-connect with this logger and upload different settings. This meant we were going to pay Veta La Palma one last visit. We picked up Rocio Marquez, the EBD's resident Godwit biologist and continued to Veta La Palma. We were able to connect to the GPS-logger and upload the new settings. If all goes well we will see her in the Netherlands and download the data gathered between now and then. For the rest of the afternoon we had three experienced people covering the entire flock in pond "A1", which resulted in over a 100 re-sightings! So, my last day here was a good one too and I will be leaving tomorrow with a good feeling about the 250+ re-sightings, the sightings of "Nantes" and Y4BYRR and the Spanish cheese in my backpack!!

### **29-10 Going home**

I took an early morning flight back to The Netherlands.



## Doñana NP, Odiel NP, Bonanza/ Algaida, 12 – 19 November 2013

Haije Valkema

### Tuesday 12 November 2013

Today I went by train to Eindhoven airport. From there I flew without delay to Seville airport. I landed in the late afternoon and Hendriekus Algra picked me up from the airport. We traveled to his temporarily stay in the center of Seville. In the evening we decided to visit Bonanza Salt pans the next day. After we ate some delicious traditional tapas I closed my eyes to get some sleep.

### Wednesday 13 November 2013

We woke up early to arrive at Bonanza Saltpans at the first daylight. After a stop to drink a 'café con leche' we arrived at the area. We checked the whole area for Godwits and in total we counted 327 Godwits. Fortunately we could read some color rings, in total 6 different birds (1 France project bird, 5 RUG project birds). 6 hours later we finished our work in this area. We drove to 'La algaidel', a river system. The whole river was dried so the Godwits left this area. The light circumstances became worse caused by the sunset, so we drove back home.



Veta la Palma

### Thursday 14 November 2013

Veta la Palma was the target area today, this is the hotspot area for wintering Black-tailed Godwits in Southern Spain. A cold, pretty strong wind was blowing and for that reason the Godwits did not stay at their normal locations. But after a while we found the first Godwits. We spent a lot of time by

observing colorings and counting all the birds. In the end we counted 6000 bird less than the previous week. This was a bit strange but maybe we missed some birds cause the strong winds? At 3 o'clock we went to an area named 'Dehesa de Abajo', previous week no Godwits were present there but maybe some of our 6000 'lost Godwits' were there. While we drove to the area we checked all the surrounded rice fields. When we arrived, we could not find any Godwits so we call it the day.

### **Friday 15 November 2013**

Today we checked a lot of areas. We started at sun rise at the El Rocio marshlands. An exceedingly beautiful spot. It is located next to a 'Cowboy village' with sandy roads and horses. Godwits like this place also; we founded about 100 Godwits here. Unfortunately no complete coloring sighting, only a very strange project with a big white ring. We never saw this combination of color rings before... The Huelva river had a high tide at 2 o'clock so we arrived at noon at this place. We founded some Black-tailed Godwits here but also a lot of Bar-Tailed Godwits were present here. After a couple of hours we counted the whole area. Also as group of 150 Spoonbills stayed here, so we made some time to read spoonbill rings for our colleges (Otto & Petra). Marisma's del Odiel was our last target area for today, when we search for approximately an hour we decided to drove back home.

### **Saturday 16 November 2013**

Today we went to Veta la Palma again to read color combinations. We arrived at sun rise and read out color ring combinations the whole day. Finaly we were lucky with a satellite bird, the portable antenna made connection with one of the birds (bird '2010'). We read out data until our laptop battery was empty. We get almost 2 months of data and probably including the data about the migration route from the Netherlands to Spain, great! We slept this night in a very beautiful place called 'el palacio'. It is located 11 km into the districted area of the Coto Doñana. Rocio arranged a permit for us, very nice experience!



El Palacio de Doñana

**Sunday 17 November 2013**

Sunday we drove back in the early morning to Veta la Palma, after 2 hours of complications we finally get connection again with our satellite bird. The portable antenna read the whole day data again, but we need to stop it cause the battery of the laptop was empty again, probably we need one other day to read all the data. Furthermore we read coloring combinations until 15.00. The last 3,5 hours of daylight we searched for Godwits at the rice fields nearby Veta la Palma, but we did not found any.

**Monday 18 November 2013**

My last day of work in Spain was also planned to read colorings at the fish pounds of Veta la Palma. So again our alarm woke us up early and after our daily routines (wake up – drive for 1 hour – drinking coffee) we arrived at our destination. After a day of work we finally collected all the digital data from the satellite bird, so were quite happy! The next day I flew at 7.00 back to Holland, an interesting and nice experience again.

**Tuesday 19 November 2013**

I took an early morning flight back to The Netherlands.



## Doñana NP and Odiel NP, 14 - 21 December 2013

Jos Hooijmeijer

### 14 December 2013; sunny, 2 Bft, 18 C

Today was a travelling day from Eindhoven to Seville. I arrived at 13:00 and Rocio Marquez of the EBD picked me up. After that we went straight to the field to see the first godwits before sunset. We arrived around 16:00 in Veta la Palma and found a big flock in pond A1. The birds were densely packed and we estimated that about 15.000 birds were present. Almost all birds were still in full winter plumage but the occasional bird was already showing the first signs of the developing breeding plumage. They were chattering and getting active and we could spend 2.5 hours before it started to get too dark to read rings. On the way out we ran into a flock of 300 birds in B2 and 1000 birds in C1. In the end there were 13 CR in my book; not bad for a first day!



Veta la Palma

### 15 December 2013; sunny, 2 Bft, 17 C

We left very early in the morning for Veta la Palma to find out if we could see the birds arriving from the rice fields where they have been foraging during the night. We arrived at 08:00 at the daytime roost about 30 min before sunrise but all birds were already present. We had the impression that were not long there yet because they were still flying around and not yet roosting. We scored the first colour rings but switched to a different position of the A1 pond to get the sun from behind. The rest of the morning we stood on one place and scored many colour rings and made an estimate that about 18.000 birds were present. After noon the birds all went to sleep and we tried our luck at other ponds. We found smaller flocks in E2 and C6 (750 in total) foraging intensively, probably on



chironomids. We also read a code flag of a chick from 2013 before going back to the A1 pond and spent our time until it became too dark to read rings (18:30).

**16 December 2013; sunny 2 Bft, 18 C**

In the morning we went to Northgate to pick up the 4x4 car. Apparently there was some kind of problem with the payment and we lost half a day organizing the right documentation. After Rocio had to go to the EBD for work and I headed south to explore the ricefields of Isla Menor on the eastbank of the Guadalquivir river. We had never been to this area and it was a surprise to see the vastness. It is quite comparable to the ricefields on the westbank and even though it has been dry for months now, many ricefields still hold water. Several farmers were ploughing swarms of Glossy Ibis and gulls but unfortunately no godwits. Large flocks of waders were found in the Brazo del Este, a former branch of the river but now cut off, that meanders through the rice fields. After hearing that the Bonanza and Algaida salt pans did not hold more than 50 godwits last week, I decided to skip this area and go to the El Rocio marshlands. When I arrive there in the late afternoon, I saw that the lagoon had attracted many waterbirds but among those only 3 godwits! This night and the next few, I will sleep at El Palacio, a beautiful field station of the EBD on the edge of sand dunes and marshlands.



Scanning flocks for rings at Veta la Palma

**17 December 2013; cloudy, 3 Bft, 16 C, small shower**

At Odiel Marshlands NP, it is always most profitable to arrive just before high tide because you can see the birds coming to the roost and read rings while they are moving around just after landing. However high tide in Huelva was today at 15:15 and therefore I decided to check El Rocio marshland again (no godwits) and after that moved on to Dehesa de Abajo, a shallow freshwater lake close to Pueblo del Rio. On my way there, it became clear that the natural marshlands were completely dry and that there are no birds in the top location of last year December: Lucio de Mari Lopez. But at

Dehesa de Abajo the lake was full of ducks and waders, including 200 Black-tailed Godwits. Fortunately the birds were foraging close to the shore and I managed to read 2 ring combinations. After that it was time to check Odiel but only 150 birds were present, including 1 old Y1 bird from the Workumerwaard in perfection condition: fat score 4!

**18 December 2013; fog followed by sunny spells, 3 Bft, 18 C**

Today started with a dense fog which only lifted after 11:00. By that time I was fully installed next to pond A1 in Veta la Palma, where I spent the entire day. This yielded 38 resightings including a lime codeflag of a chick from 2011 and a sighting of Argos-satellite-transmitter-bird Rotterdam! Rotterdam turned out to be an Icelandic Godwit after we deployed the transmitter in Extremadura, Spain in February 2013. The bird looked just fine and it is impossible to see the transmitter on its back. The only thing you notice is the long antenna sticking out. Later in the afternoon Rocio joined me and brought the receiving station for the UvA-bits GPS-loggers. After setting up the antenna, it immediately started downloading data of bird 2010 that was apparently somewhere in the flock. Quite a successful day after a slow start!

**19 December 2013; clouded followed by heavy rain, 3-5 Bft, 16 C**

The weather forecast expected rain for the whole day but fortunately it came only at 14:30. The strong wind blew the water away and birds were forced to stand on 2 legs. This gave the opportunity to read a lot of rings in Veta la Palma, including Amsterdam and Nantes, two transmitter-birds from last February. Both were looking healthy and again only the antenna could be seen. The data of UvA bit-bird 2010 showed that it has a fairly small home range, spending most of the day in a fish pond in Veta la Palma and flying at night to ricefields at about 4 km to forage. Today it could not be picked up by the receiver. The day ended halfway the afternoon when heavy showers made it impossible to see ring. However a total of 42 rings is not bad at all!

**20 December 2013; clear, 3-4 Bft, 14 C**

On my last day, I headed for Veta la Palma again and was joined by Rocio. The flock was still present in the A1 pond and most were sleeping and standing on one leg. When the wind increased more birds were on two legs and they moved a bit more making it possible to see more rings. However because of the cold northern wind the birds had put out their feathers, obscuring the upper rings and making it very dubious to score abdominal profiles. Later in the afternoon a booted eagle made them completely freak out and after that they were easily disturbed and flying a lot. But on the other hand this gave the opportunity to see more rings and I ended with 23 sightings of our own scheme. This sums up to a total of 140 sightings of 119 different individuals in the past week which is a very good result to go home with.

**21 December 2013; clear, 3 Bft, 16 C**

Return to The Netherlands early in the morning.

# Doñana NP, Odiel NP, Bonanza/ Algaida, 10 - 17 January 2014

Rene Faber and Jouke Altenburg

Mission report *10-17<sup>th</sup> January 2014*

ExPeer project: Habitat Use by a threatened long-distance migrant  
the Black-tailed Godwit



René Faber & Jouke Altenburg

## **Friday 10th of January 2014** Sunny, 18C, little wind

At 11.00h Rocío Marquez Ferrando collects us at the Aeropuerto de Sevilla. She brings us to Northgate, where we pick up the rental 4x4. From there we drive to Isla Mayor. Here had a quick lunch and then head for Veta la Palma. Rocío shows us around the fish ponds. At 14.00h, in pond A2, we encounter a flock of  $\pm 3000$  Black-tailed Godwits. The flock is positioned in the corner near pond A2 and B2. We sneak up to the group and read some colour rings. At 16.00h we go to pond C2, where we find  $\pm 2000$  Black-tailed Godwits. We also read a few colour ring combinations here. We leave early, at 17.00h, as Rocío wishes to guide us to El Palacio de Doñana during day light.

## **Saturday 11th of January**

**2014** Sunny, 18C, little wind

We get up early, have breakfast and drive straight to Veta La Palma, to pond A2. There is a flock in the same corner as yesterday. It contains more than 2000 birds. A second group ( $\pm 2000$  Black-tailed Godwits) is situated nearby, in another corner of pond A2. We try to approach it. As they are sitting



**Photo 2** Black-tailed Godwits landing in pond A2 Photo: Jouke Altenburg

really close to the edge of the pond, the birds can't see us coming. This is a disadvantage, as they don't see us until we are very close. This scares them, makes them most sensible, so we withdraw to the first flock. The first few hours we hardly read any rings, as practically all birds are resting (on one leg). Around noon we manage to read some more rings as some Black-tailed Godwits start preening. Basically the flock is inactive all day. At 15.00h we leave pond A2. We perform a scan of the other ponds of the A- and B quadrant, without success, no Black-tailed Godwits. At 16.00 we arrive at pond C2. Here there are 1900 Black-tailed Godwits. Most of the birds are resting until 17.50, after this they start foraging. We read a lot of colour ring combinations, perform a few valuable samples and leave at 18.45h. We drive back to Isla Mayor, have dinner there, leave for El Palacio de Doñana at 21.00h and arrive there at 23.00.

**Sunday 12th of January 2014** Clouded, 16C, sunny spells every now and then.

After breakfast, we drive straight to Veta La Palma. There, we first check if there are any birds in pond C2. There are  $\pm 2000$  Black-tailed Godwits there. As most of them are inactive; the light is in our face and; the Black-tailed Godwits are in belly deep water, we decide to move to pond A1. There are  $\pm 800$  Black-tailed Godwits there, in the middle of the pond, all resting. This is why we scan pond A2, where we find  $\pm 3000$  Black-tailed Godwits in same corner as the previous days. There are also many birds in the other corner of A2. As before, we sneak up to the group in the nearby corner. An attempt to get to the other flock again proves to be unproductive, the birds are alarmed and flee. We withdraw and focus on the first group. Around 14.00 two big flocks come spiralling in, adding 800 Black-tailed Godwits to the already present flock. This activates the flock, which enables us to read a lot of colour ring combinations. We also see satellite-tagged bird Rotterdam. We observe this flock until 16.15h. At 16.10 a marsh harrier flies over, which makes all birds go up. We estimate there are  $\pm 7000$  Black-tailed Godwits in A2. Because by then the light has turned too



Photo 3 'Rotterdam' 12th of January 2014 Photo: René Faber

bad for reliable colour ring reading, we decide to go to pond C2. Unfortunately there are no birds there.

After this, we head home.

**Monday 13th of January 2014** Rain in the morning 11C wind NW 3B. Dry & clouded from 11.00 wind NW 3B. Sunny after 15.00, then 15C wind increasing to 5B.

When we wake up, it is raining. At the time we arrive at Veta la Palma, it has stopped raining. First we check out pond C2, there are 450 Black-tailed Godwits around, which are soon accompanied by another 200 birds. Most of the birds are foraging, but mainly up to their bellies in the water. We do manage to read a few colour rings.



Then we go to pond A2. On our way there, we see a huge flock of Black-tailed Godwits sitting in pond A1, over 10.000 birds. The group is very sensible. Every now and they fly up, each time a few hundred birds fly to pond A2. Just as we are getting ready to start monitoring the flock in A1, they leave. We can see them flying towards the basin of El Lucio de la Esparragosilla Chica.



**Photo 4** Monitoring the Black-tailed Godwits in El Lucio de la Esparragosilla Chica  
Photo: Jouke Altenburg

At El Lucio de la Esparragosilla Chica, the Black-tailed Godwits

are tightly packed in in the most sheltered (from the wind), Northwestern corner of the Lucio. We sneak up to the group and manage to get real close. Unfortunately over 4/5 of the group is resting, belly deep in the water. Aggravating is the fact that between 13 and 18.15 the head wind is increasing (3 to 5 Beaufort). Even though the wind makes tears well up in our eyes and our telescopes shake, we are able to read quite some colour ring combinations of the few foraging or preening Black-tailed Godwits.

It takes a marsh harrier at 18.15 to get the birds active and foraging. In the last half an hour we don't succeed in reading much more rings because of deteriorating light conditions. Still we are quite satisfied with the amount of colour ring combinations we have read. A great bonus is that we see the satellite-tagged birds 'Amalia', 'Amsterdam' and 'Nantes'. They look in good shape. After having seen 'Rotterdam' previously, this means we have seen all currently present satellite-tagged Black-tailed Godwits. At 18.49 we exit Lucio de la Esparragosilla Chica.

While driving back from El Lucio de la Esparragosilla Chica, we –before leaving- check if there are any Black-tailed Godwits in pond C2. There are, in the moonlight we can see at least 1500 Black-tailed Godwits. Most of them are foraging. At 19.10 we leave Veta la Palma, on our way for the two hour drive to El Palacio de Doñana.

**Tuesday 14th of January 2014** Bright and sunny start of the morning, 11C, wind SW 3B.

13.30 semi-clouded wind SW 5B. 16.00 fully clouded, 16C, wind SW 5B.

We start our day at La Dehesa de Abajo to check if there are any Black-tailed Godwits there. On our way back and from the Dehesa we scan the Isla Minima ricefields. From the road we can fully scan the Dehesa, but no godwits. There are many Northern Shovelers though, as well as large flocks of Avocet,



**Photo 5** The ricefields of La Cantarita, with a tractor that recently has been ploughing the rice paddy. Photo: Jouke Altenburg



Black-Winged Stilt and Flamingo. We then head for Isla Mayor, where we decide to check the Ermita and Cantarita ricefields for Black-tailed Godwits. We focus on the rice fields where the satellite-tagged Black-tailed Godwits have been pinpointed during the past week. We drive around the fields and see a mosaic of rice fields, which are in different stages of use. Some still are in stubbles, others fully inundated, some have dried after (recent) inundation and some have recently been inundated and ploughed. We don't know what the Black-tailed Godwits do at night in the rice fields, but there definitely are fields that seem suitable for foraging.

At Noon we arrive at Veta La Palma. We first check pond C2, no birds there. While driving past pond B2 we notice  $\pm 2000$  Black-tailed Godwits there. They are tucked away in a sheltered, shallow place, trying to stay out of the strong wind. About 600 Black-tailed Godwits are foraging in belly deep water. This is the first time this week we see a flock of this big a size foraging actively at midday. We try to check them for colour rings and manage to read a few. When they flee and land far away in the pond, we decide to move on. While passing pond A2, we find  $\pm 3000$  Black-tailed Godwits in the corner where we have seen them the past few days. This surprises us, because they are not sheltered from the wind. They are all resting and the sun is in our face so we move on to El Lucio de la Esparragosilla Chica. Like yesterday there is a huge flock in the same corner. They are densely clustered, all resting. This means that there are no or little possibilities for reading colour ring combinations. We soon notice that there is also a huge flock at the other end of the pond. It contains 8000 Black-tailed Godwits. The two flocks together must consist of somewhere near 15000 Godwits. We drive to the flock at the other end and manage to get really close to them. A lot of birds are resting and in deep water, the birds that are preening or foraging are in deeper water too. This means that we -despite an ideal distance, hampered as well by bad light because it has turned very cloudy and rain isn't far away- manage to read only fifteen colour ring combinations. At 17.50 the light has turned to an irresponsible darkness for colour ring reading, which is a pity as the birds are starting to become more active round this time. We leave and drive by pond A2, which is empty now, in pond B2 there are  $\pm 3000$  birds. At 18.10 there are no birds in C2. Adding the different flocks, we estimate we saw about 20.000 Black-tailed Godwits today .

**Wednesday 15th of January 2014** Clouded all day, 15C, wind NW 1-2B.

Today is our last full field day, so we start really early. First we check pond C2, which contains no Black-tailed Godwits. In pond B2 there are 1700 Black-tailed Godwits, of which 700 are foraging actively in the open. With excellent light conditions, we scan for colour rings. The results are great, 11 RUG-combinations of which two code flags (one 1L and one 1G). The other 1000 Black-tailed Godwits in pond B2 are too far away for good

colour ring reading, they are also too deep in the water. After this we check

pond A2. Here there are  $\pm 2000$  Black-tailed Godwits, but the birds are in the corner of the pond in



Photo 6 'Nantes' 15th of January 2014 Photo: René Faber

which they are hard to approach, so we decide to go to El Lucio de la Esparragosilla Chica. Here there are -like yesterday- many Black-tailed Godwits. We count 13.415 Black-tailed Godwits, which seems comparable to yesterday (when there were two major flocks in this Lucio). Most of the Godwits are resting, only a few hundreds are foraging. Every now and then small flocks of Black-tailed Godwits (15-50 birds) leave the pond and fly to a nearby pond, one with a very shallow water level. We pay a quick visit to this pond, manage to read the colour ring combination of one Black-tailed Godwit. As the small and longitudinal shape of the pond seems to make the birds highly sensible, a passing car makes the birds fly back to the main pond. We follow them and focus on preening birds in the front and interior of the flock as well as on birds that are foraging -mainly to the back and sides of the flock. We read many colour ring combinations, under which the satellite-tagged birds 'Nantes' and 'Amalia'.

The high number and density of the flock provides us with little time/ opportunity for reading colour ring combinations. 'Amalia', for instance, we only get to see for 10 seconds, while he is moving from one place in the flock to another, where it rests again behind another resting Black-tailed Godwits. For the next two hours there are no shifts in this part of the flock. This means we don't get to see 'Amalia' again, even though we know that he's in the flock. Between 14.00h and 16.30h, again small flocks (30-70 Black-tailed Godwits) leave the flock and head for the nearby, aforementioned pond or fly further away.

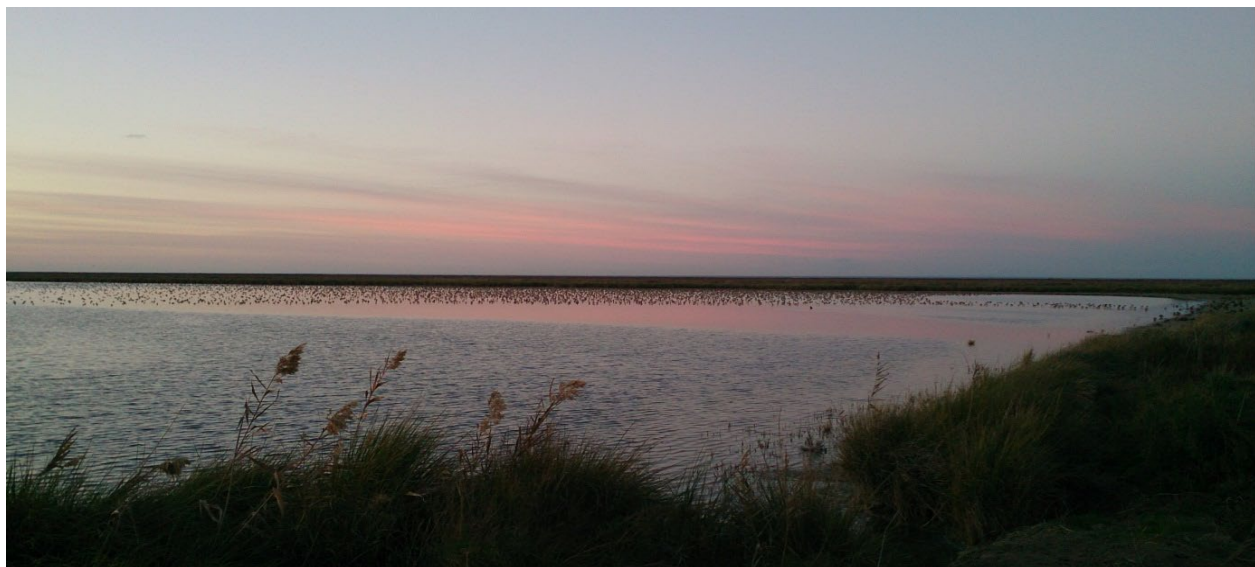
At three o'clock we are joined by Rocío Marquez Ferrando. We lift the antenna to look for signals of the Black-tailed Godwits that carry a transmitter of the University of Amsterdam. At 17.00h we leave the group. Jouke and Rocío head for the ponds C2, B2 and A2, as René focuses on the birds that have flown to the nearby pond. Here a flock of 800 birds has gathered, which can be sampled ideally. It contains 9 colour ring combinations of the Rug scheme, 1 code flag, 1 bird with a single metal ring and two birds of the scheme of the University of Badajoz. After this, René joins Jouke and Rocío. After first having checked pond C2 and A2 (no Black-tailed Godwits), they are now observing a big flock which is scattered over pond B2. B2 contains between 2500-3000 Black-tailed Godwits of which the majority are foraging, moving from the lower parts in the centre to the side of the pond. Together we read another twenty colour ring combinations. At 18.30 the light has become too bad, so we call it a day.

**Thursday 16th of January 2014** Rain till 10.30, Sunny from 11.30 onwards, 15C, Wind 3-4B

Our final (short) field day starts with rain. We drive to Veta la Palma, where pond C2 contains no Black-tailed Godwits. In pond B2 there are  $\pm 2700$  Black-tailed Godwits of which 4/5 of the flock is foraging actively, which makes reading colour ring combinations easy. We observe and sample the flock from 11.00-12.45h. Then we go to Lucio de la Esparragosilla Chica, where a big flock of 10.000 Black-tailed Godwits is present. Here the wind is strong, pushing the water up high, while most of the birds are resting. Though we have only an hour left for observing, we only manage to read 7 colour ring combinations. We end our monitoring activities at 14.30, with another encounter of 'Nantes'! After this we drive to Isla Mayor, clean the 4x4 and return it to Northgate in Dos Hermanos (near Sevilla). Here Rocío joins us and gives us a lift to the Ibis Hotel. We spend the night there and return to the Netherlands early Friday morning.



**Photo 7** The flock at El Lucio de la Esparragosilla Chica 13th of January 2014 18.36h Photo: René Faber





## Doñana NP, 31 January – 7 February 2014

Jos Hooijmeijer

### 31 January 2014, cloudy; 3 Bft; 14 C

Travelling from Amsterdam to Sevilla. Rocio Marquez helped out to pick up the car and after that I went straight to St Amalia in Extremadura where I arrived at 18:00. Here I found the teams from the University of Extremadura and Groningen in the rice fields. They had just set up the mist nets to catch Black-tailed Godwits. This night we wanted to catch 15 females for our satellite tagging project ([www.volgkeningfanegreide.nl](http://www.volgkeningfanegreide.nl)). The first rounds brought no godwits but at 02:30 we caught 38 birds and some Ruffs! Unfortunately there was a strong sex bias towards males and only 8 females were selected and brought to the aviaries at the University of Extremadura in Badajoz. We colourringed the rest of the birds and those were released immediately. We finished at 4 am and I reached my bed at 5, after an intensive day of 26 hours without sleep.....

### 1 February 2014, sunny spells; 3 Bft; 14 C

We woke up in the late morning and after “brunch” headed for Badajoz. The 8 females were doing well in the cages and seemed to be quite relaxed. We spent the rest of the afternoon mounting the transmitters with harnesses on the backs of the birds and kept them in the cages for one more night to see if they coped well with the devices. In the beginning they might walk a bit awkward but they get used to them fairly soon. In the late afternoon I headed back to Doñana where I met Tom Jager in El Rocio.



Lucio de Mari Lopez

### **2 February 2014, sunny, 1 Bft, 15 C**

The next morning we headed straight for the first location where godwits were reported during the last areal census: Lucio de Mari Lopez in the natural marshlands of Doñana NP. Rocio joined us for her day. The lucio hold more water than expected but unfortunately the big flock of 15.000 birds that was reported, was no longer present. About 2000 birds were standing in the middle of the lake and were in the beginning easily scared off by our approach. It took more than 1,5 hrs to let them get used to our presence but after that we had the opportunity to read 7 birds from our own ringing scheme and 3 from other schemes. We walked the 5 km dirt track back to the main road in the late afternoon and headed for El Palacio de Doñana where we would stay for the rest of the week. But before that we read two more colour rings at the El Rocio marshlands and were extremely lucky run into an Iberian Lynx crossing the dirt track behind El Rocio. We had a short view but could see all the details, including a big collar for satellite tracking.

### **3 February 2014, rain in the morning, sunny afternoon, 2-4 Bft, 15 C**

In the morning we tried to read some rings in the El Rocio lagoon but it was raining too hard. So we drove on to the JA Valverde visitor centre and from there to Dehesa de Abajo. We found no godwits on the way there but by the time we reached DdA, the sun came through and we saw a flock of about 1500 birds landing in the Isla Minima ricefields. We found our way to this group and in 1,5 hrs time managed to read 15 ring combinations; almost all of them were not seen in this winter suggesting that these might be fresh arrivals. The birds were very lean which also points to that. We checked the lake at DdA but found no godwits. In the late afternoon we arrived at Veta la Palma near Isla Mayor. In the far back at El Lucio de la Esparragosilla more than 18000 birds were present and becoming active, The circumstances for reading rings were excellent and we read moer than 25 combinations in 1,5 hrs. In contrast to the birds at Isla Minima, more than half of the birds at VIP were seen previously this winter. At 19:00 we stopped and travelled to El Palacio where we arrived at 21:00.



Still big flocks at Veta la Palma



#### **4 February 2014, clouded, 4 Bft, 14 C**

We started again at El Rocio lagoon and found one colour ringed bird in a flock of about 100 birds. We continued through the Coto del Rey towards the fields north of the visitor centre to continue on the east side of the Corredor Verde. From this dike we had splendid views over the rice fields west of Isla Mayor and the Cantarita ricefields. These rice fields are recognized as an important area for godwits but apparently not during daytime as we found no birds at all. The UvA-bit transmitters that we read previously in December revealed however that godwits mainly use the ricefields during the night. We have no clue why they forage here mainly at night: predation risk, illegal hunting? After the disappointing morning in the ricefields we headed for Veta la Palma where the large flock of 15-20.000 birds was still present in El Lucio de la Esparragosilla. We managed to read more than 50 birds including 8 codeflags. We transgressed the rest of VIP without much luck: only a few hundred birds were seen in C2 and B2. In C2 they were actively foraging which struck us also during our visit in December.

#### **5 February 2014, clouded, 4 Bft, 17 C**

In El Rocio we met the team of King of the Meadows that was preparing the EU Cultural Capital Event that will be organized from Leeuwarden, Friesland, The Netherlands in 2018. In this event, one of the leading themes will be how godwits connect different cultures throughout Europe (and Africa). We exchanged a lot of information about godwits in Doñana and probably this will be one of the locations in 2018 where a cultural exchange festival will be organized. We left them and headed for Veta la Palma where we stayed all day. The water level in Esparragosilla was a bit higher and lost of birds were standing on one leg or in deep water which made reading rings difficult. After 16:00 when birds started to wake up and move, this became somewhat better still by far not as good as yesterday when the wind blew the water to the opposite corner of where the birds were standing. Still, we were not unhappy with a total score of 45 birds read.

#### **6 February 2014, clouded, drizzle and heavy showers, 4 Bft, 15 C**



We had planned to go once more to Lucio Mari Lopez to check how many birds would be there. But when we woke up it was raining a lot and the prospect of walking for more than 2 hours in the rain and not being sure to find any birds was not very appealing. Therefore we chose the safe option: going to Veta la Palma again. When we arrived, all birds were still in Esparragosilla but we counted less: 12-15.000. So perhaps there were birds in Mari Lopez after all. But we were not unfortunate to have chosen for VIP. The strong wind forced the birds to stand on 2 legs and made the water level drop to

below the intertarsal joint, exposing a lot of colour ring combinations! Between 11 and 16 pm we managed to read more than 100 different combinations, again including a lot of code flags! That was a good result to end this week of fieldwork with. At 18:00 we had to return the car and stayed the night at a hotel close to the airport.

#### **6 February 2014, clouded, drizzle and heavy showers, 4 Bft, 15 C**

Flight back from Seville to Amsterdam