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Black-tailed Godwit Demographic Project

Spring migration of Black-tailed Godwits in Iberia 2017

Portugal (Sado & Tejo), Spain (Doñana & Extremadura)



Funded by University of Groningen and Global Flyway Network

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Introduction

In 2004 the University of Groningen has started a long-term demographic project on a partly colour-ringed breeding population of Black-tailed Godwits *Limosa limosa* (hereafter: godwits) in SW Friesland and has since then coordinated all colour marking of godwits in The Netherlands. Mainly from December onwards, Black-tailed Godwits leave their wintering areas in West-Africa to stopover areas in southern Iberia. Here they are confined to three main areas: Doñana NP and Extremadura in Spain and the rice fields surrounding the Tejo and Sado estuaries near Lisbon in Portugal (Figure 1). Since 2007 these areas are visited by experienced volunteers and researchers from the University of Groningen in search for colour-ringed godwits. In this report you will find a summary and detailed day-to-day trip report of our work in Portugal and Extremadura in 2017.



Figure 1. Three main areas where many godwits can be observed during January-February; Extremadura (1), Doñana NP (2), Tejo-Sado (3)

Resighting colour marked birds during the stopover period is important for several reasons:

1. 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.
2. Secondly, with enough resightings in the Iberian Peninsula we can calculate seasonal survival. In other words, we can calculate in which period of the life cycle mortalities occur more often.
3. By measuring the density of individuals with colour marks, we can monitor the population size of the western European part of the Black-tailed Godwit population. In

2016 we published a scientific paper about this, a true milestone summarizing 9 years of fieldwork in Iberia. Please find below the abstract.

Estimating the size of the Dutch breeding population of Continental Black-tailed Godwits from 2007–2015 using resighting data from spring staging sites (*Ardea* 114: 213–225.)

Rosemarie Kentie^{1,*}, Nathan R. Senner^{1,2}, Jos C.E.W. Hooijmeijer¹, Rocío Márquez-Ferrando³, Jordi Figuerola³, José A. Masero⁴, Mo A. Verhoeven¹, & Theunis Piersma^{1,5}

Over the past 50 years, the population of Continental Black-tailed Godwits *Limosa limosa* breeding of the East Atlantic Flyway has been in steep decline. This decline has previously been documented in trend analyses and six Netherlands-wide count-based population estimates, the last of which was completed in 1999. We provide an updated population size estimate and describe inter-annual fluctuations in the population between 2007 and 2015. To generate these estimates, we integrated a mark-recapture survival analysis with estimates of the densities of colour-marked individuals at migratory staging sites with known proportions of Continental and Icelandic *L. l. islandica* Black-tailed Godwits within a Bayesian framework. The use of these analytical techniques means that, in contrast with earlier efforts, our estimates are accompanied with confidence intervals, allowing us to estimate the population size with known precision. Using additional information on the breeding destination of 43 godwits equipped with satellite transmitters at Iberian staging areas, we found that 87% (75–95% 95% CI) of the nominate subspecies in the East Atlantic Flyway breed in The

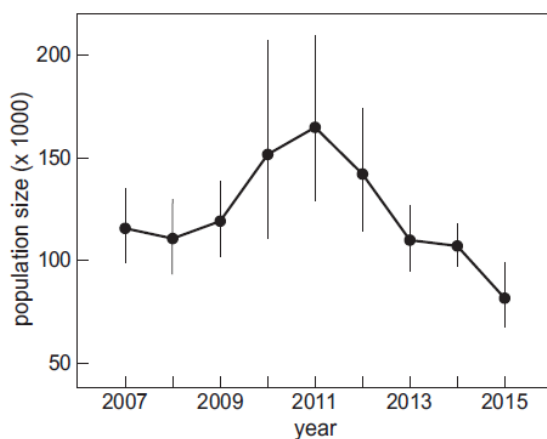


Figure 2. Population size of Black-tailed Godwits *Limosa limosa* of the East-Atlantic Flyway based on colour ring densities on the staging sites. These estimates include godwits from de Icelandic subspecies *Limosa limosa islandica* using Iberian rice fields, which we assume to be 6.5% of the population size.

Netherlands. We estimated that the number of breeding pairs in The Netherlands has declined from 47,000 (38,000–56,000) pairs in 2007 to 33,000 (26,000–41,000) in 2015. Despite a temporary increase in 2010 and 2011, the population declined by an average of 3.7% per year over the entire period from 2007–2015, and by 6.3% from 2011–2015. We conclude that investing in an intensive demographic program at a regional scale, when combined with targeted resightings of marked individuals elsewhere, can yield population estimates at the flyway scale.

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Summary and overview sightings 2017

Overview Sado and Tejo estuaries

When we arrived in Portugal in late January, we experienced the last bit of a rainy period. The fields were wet and farmers had already started ploughing. Conditions were therefore good for staging godwits that prefer wet, freshly ploughed rice fields to forage on. From the 2nd week of February the weather improved with favourable ring reading conditions.

The hotspot was again the Giganta ricefields near Porto Alto. The surface used here for rice cultivation is still increasing. It is an important product for the Portuguese economy but it would not be very profitable if not subsidized by the European Union. The increase in rice fields is attracting more and more birds. The increase in godwit numbers in the past years is probably due to a combination of several factors: more rice fields, at close range to the traditional roost in the Tejo estuary, no hunting and no use of pesticides because the rice is used in baby food. Perhaps it is a coincidence but birds seem to prefer those fields that are sprayed less.

In the course of February the number of godwits declined from a peak number of 38000 in the first week to around 3000 in the last week of February. Already in the second week of February we saw flocks leaving the roost at Giganta in a NE direction. Smaller numbers up to 6000 individuals were found back at Santo Estavao-Belmonte ricefields but we never encountered the massive flocks with more than 70.000 of last year. The other ricefields at Benavente, Samora Correia, Salvaterra de Magos, Barroca de Alva, Paul de Trejoito were scanned regularly but we hardly found any godwits there. Only very small numbers were found in the Sado estuary but we did not visit this area frequently and thoroughly enough exclude that more birds were there. We suggest that the godwits might have moved on north sooner than in other years. The reason for this remains unclear but we see a trend of earlier departures from the Tejo area in recent years.

In total 2638 resightings were made of 833 individuals with a full colour ring combination of the RUG-program.

Overview Doñana and Extremadura

We only spent a few days in Donana in early February. The recent rains had flooded the natural marshlands but even more important is that more water from the Guadiana River now streams into the Doñana marshlands again, like in the past before the disaster with the pollution of the mine upstream. Aerial counts had shown however that no godwits were present at Lucio Mari Lopez and other lucios. We found a few hundred godwits as usually at El Rocio, no birds in the Isla Mayor and Minor ricefields nor at Dehesa de Abajo (waterlevel too high). Veta la Palma was reliable as ever with at least 15000 godwits, mainly in the Lucio Cuquero Grande .

In Extremadura agricultural parcels are smaller than in Doñana or the Tejo Estuary. Rice farming appears to be an equal cropping alternative among a mosaic of other options such as maize, cereal, olives and fruit (mainly apples). Many parcels were already ploughed after the previous harvest which leaves the ground bare during winter. At this time, in the early spring, annual grasses (probably *Poa annua*) have established on all of the exposed soil. In some parcels the ground was 100% covered by these grasses. Now that land preparation for the next cropping season is beginning, we noticed that

many parcels were treated with herbicides killing off all plants that might have established. Nonetheless vast areas are used for rice agriculture and by early February most were ploughed and flooded under 5-10cm of water or at least very wet with many shallow pools, with a few areas still containing standing rice stubble and plenty of surface water

One would say: ideal circumstances for godwits. But like in recent years not many godwits were found. In the first week of February roost counts near Santa Amalia did not yield more than 6500 birds, rather comparable to 2014-2016. Numbers even dropped further to less than 2000 birds by mid February but just after we left there must have been an influx of new birds: researchers of the University of Extremadura counted about 8500 at 2 roosts near Santa Amalia. But is still low compared to the 10-20000 birds 10 years ago. Despite the low numbers we found every day new individuals, suggesting that there was some turnover and not the same group of birds all the time. The birds frequented mostly the traditional sites near Hernan Cortes and Santa Amalia but were also found at Caesar de Miajadas, Vivares, Almoharin, Vivares, Rucas and Cuadrillo.

Cherry on the cake was the presence of famous transmitter-bird Amalia, tagged in the area in 2013 and still going strong!

In total 961 resightings were made of 175 individually marked birds with a full colour ring combination from the RUG-program were seen in Extremadura and 243 resightings of 179 individuals in Doñana.

Numbers, individuals and percentage of the population seen

Since 2012 a significant increase of the number of sightings was achieved until 2014; since then it has levelled off between 3-4000 sightings per year. The number of individuals seen is also more or less constant around 1100 individuals (figure 2). The reason for this increase is the amount of time spent in Iberia and the increased number of individuals with colour rings.

Despite the increasing number of ringed individuals we managed to see a fairly constant and major percentage of the of the colour-ringed population. As you can see in figure 3 below, we were in 2017 again very successful and saw no less than 70% of all alive ringed individuals, which is off course a tremendous achievement!

The number of alive ringed individuals is finally levelling off at 1600 birds due to normal annual mortality, a row of years with bad recruitment in combination with a relaxed catching effort in the study area in SW Friesland.

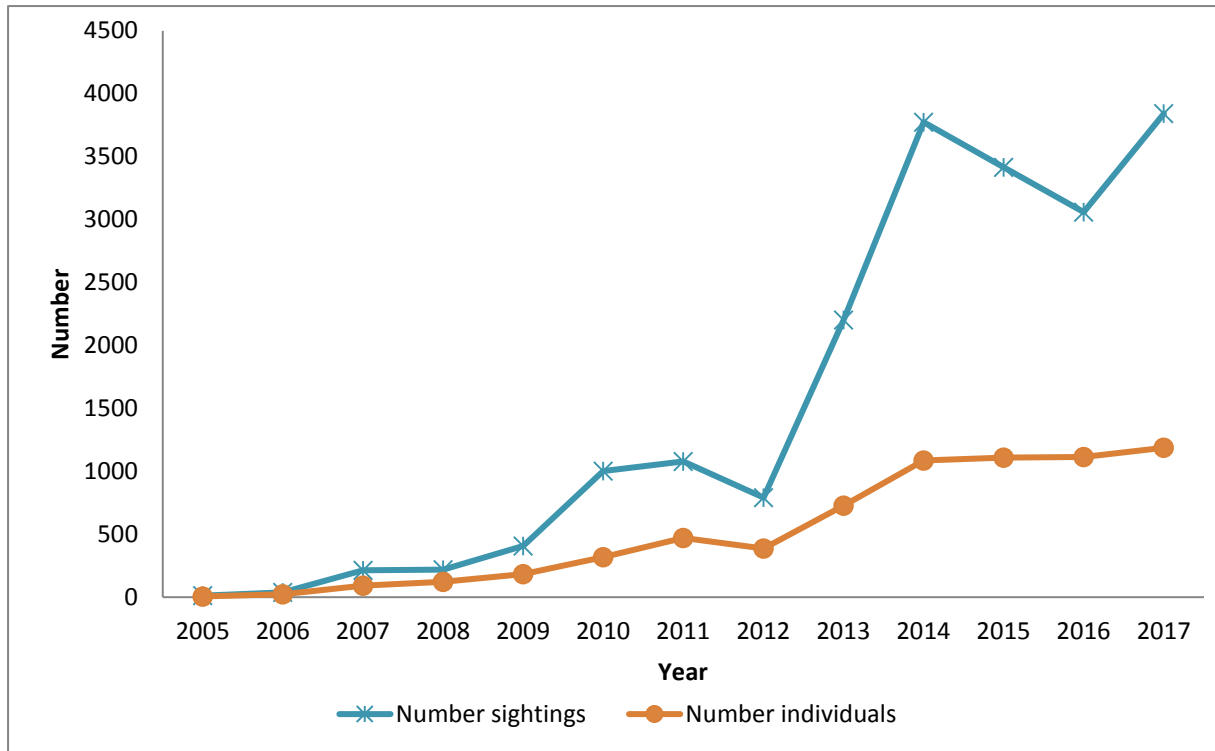


Figure 2 Total numbers of sightings and observed individuals in Extremadura, Doñana NP, Tejo-Sado in January-February of each year (no code flags).

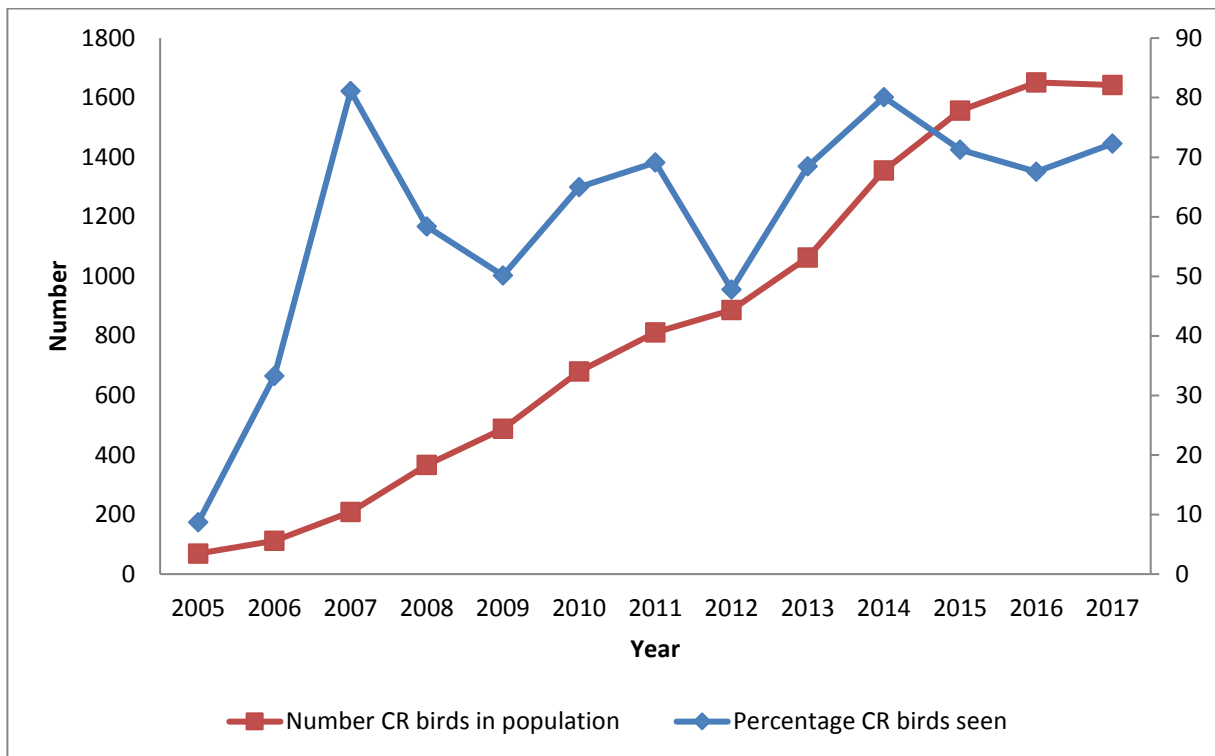


Figure 3 Estimated number of colour ringed birds that are still alive and the observed percentage in Extremadura, Doñana NP, Sado and Tejo Estuary all together in January-February of each year (no code flags).

Acknowledgements

These colour ring reading trips would not be possible without the help of all co-authors, colleagues and volunteers that spent their (free) time scanning godwit legs: many thanks for that!

Thanks to Jose Masero and Pipe Abad (University of Extremadura) for organizing the apartment in Santa Amalia again! Also Rocio Marquez helped us to organize the field work in Donaña NP; thanks to Miguel Medialdea for access to Veta la Palma fish ponds.

Thanks to Rui Alves and Livia Ala of the Companhia das Lezírias, Rui Paixão of Associação de Beneficiários da Lezíria Grande de Vila Franca de Xira for help with logistics and information.

Last but not least, all the people and organisations that gave us their hospitality to be as a guest in their areas. We are very pleased that we could make use of this.

Daily Reports

Team 0: Ruth Howison and Jos Hooijmeijer

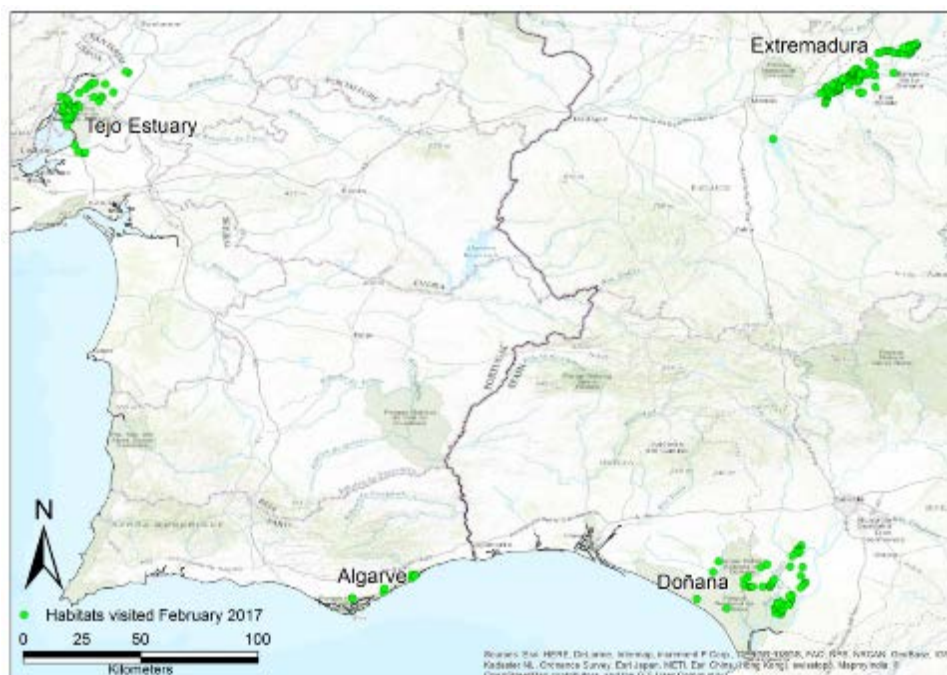
Describing habitat and finding colour rings of Black-tailed Godwits (*Limosa limosa*) Southern Portugal and Spain, 3-10 February 2017

Habitat study

Anthropogenic alteration of natural wetlands is having a major impact worldwide with consequences (both negative and positive) for migratory species such as continental black-tailed godwits. The majority of continental black-tailed godwits breed in grassland meadows situated in north-west and Eastern Europe (March – July) after which they migrate southwards for the non-breeding period (mid July – February), finding forage resources within wetlands and agricultural rice fields. On their migratory route black-tailed godwits pass through France and either stage or spend the non-breeding period in southern Spain and Portugal. Many will make the Saharan crossing to overwintering sites in West Africa, namely; the Senegal Delta and coastal region of Senegal, The Gambia, Guinea-Bissau, Guinea, Sierra Leone and central Mali.

The black-tailed godwit staging areas within Portugal and Spain are important both on the autumn south- and spring northbound migrations. Much of the natural floodplains in these areas have been converted to agricultural land use. These areas are managed differently in terms of parcel sizes, water- and land management and the amounts of herbicides, pesticides and fertilizer inputs permitted. In this study we aim to visit as many areas previously and currently visited by black-tailed godwits and classify land parcels according to the land use and management types i.e. rice fields, other agricultural crops, wet grasslands used for livestock grazing, natural or recovering wetlands, salt marshes, salt pans and lakes. These data will be combined with remote sensing data to analyze land use changes and compare environmental conditions experienced by staging godwits, linking to stability or changes in godwit distributions over time.

Between 3-10 February 2017 we visited the most important areas in southern Portugal and Spain to record resightings of individual birds and describe godwit habitat. In this report we present a daily overview of our findings with photos, locations we visited, numbers present and the first conclusions and recommendations.



Overview of the habitats that were visited in southern Portugal and Spain, during the fieldwork expedition 3-10 February 2017

Daily reports

3 February 2017

We left Amsterdam 1 hour late but arrived in Lisbon, Portugal around 16h00 without any further problems. We picked up the car and took a small detour around the Tejo Estuary to Barroca de Alva. They had just started ploughing the ricefields. After that we went to Hortas near Alcochete where we arrived when the water was at low tide. We did not encounter any godwits, but 1000's of avocets, a few spoonbills and dunlins wading in the shallow water. It looked like there had been a lot of rain recently since most agricultural fields were about 10cm deep under water or many shallow pools of water were present. We sampled a few different habitats, rice fields with standing stubble from the previous harvest, recently ploughed rice fields and wet grasslands with short grazed grasses and patches of *Juncus effusus*. Stands of 2m tall *Phragmites australis* were present along the borders of ditches and abandoned agricultural fields. Along the edges of the estuary were equally large areas covered by *Juncus* and *Phragmites*, short vegetation was dominated by grasses and succulents. We slept in an apartment in Vila Franca de Xira, where we met our colleagues Ysbrand Galama and Gjerryt Hoekstra, who are here to collect resightings and colour ring density samples.



Livestock grazed landscape with tall Juncus patches, Barroca de Alva



Standing rice stubble, Barroca de Alva

4 February 2017, 90% clouded and raining on and off until late afternoon

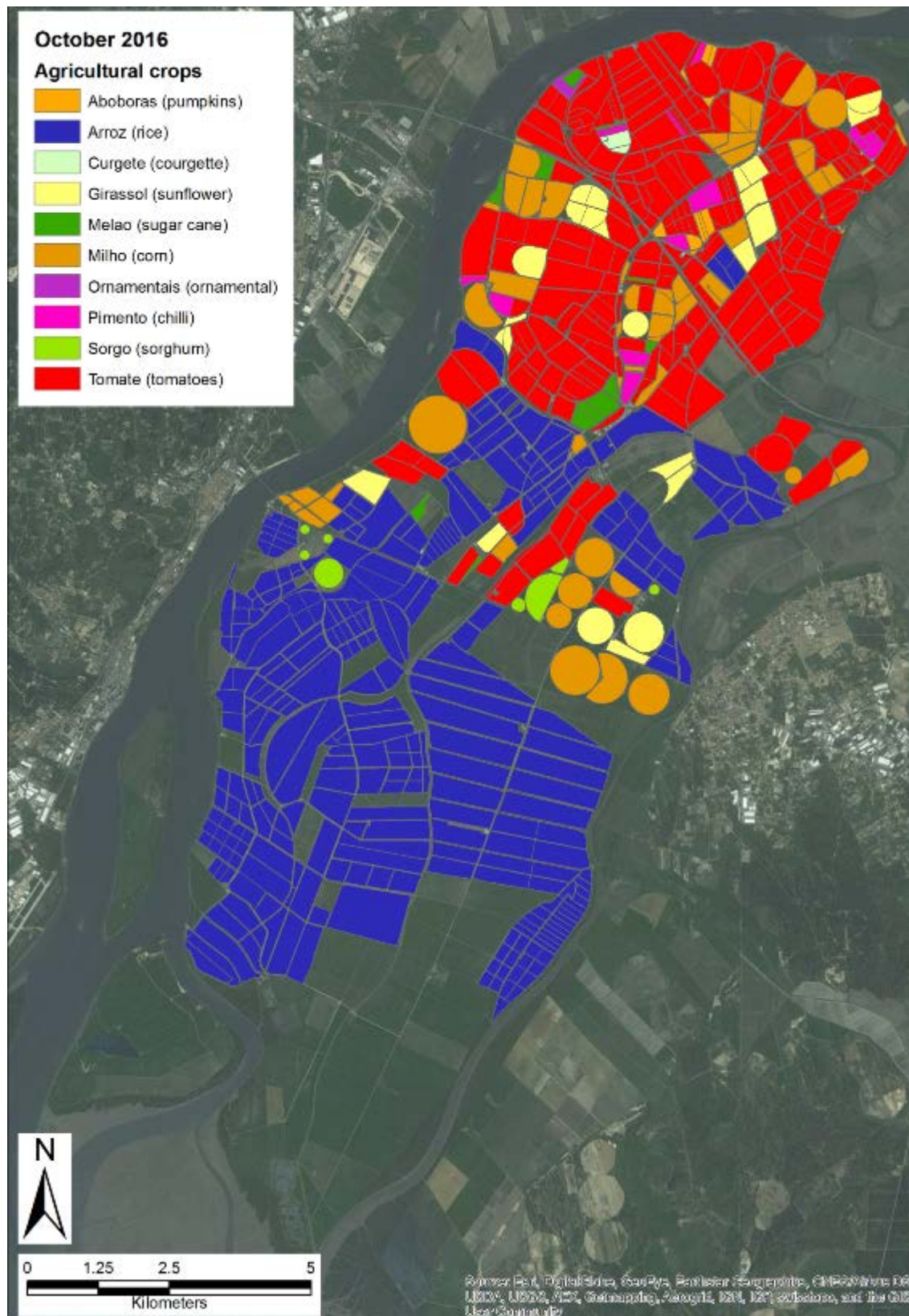
In the morning we went straight for the best area to find godwits, the rice fields of Giganta and Ponta da Erva. But first we had to pick up a keycard for the main gates at the office of the agricultural company Associação de Beneficiários da Lezíria Grande de Vila Franca de Xira that manages the area around the road between Porto Alto and Vila Franca. There we met Rui Paixão who keeps record of all wildlife in this area and tries to keep the delicate equilibrium between farmers, hunters and birdwatchers. He told us the surface used for rice cultivation is still increasing. It is an important product for the Portuguese economy but it would not be very profitable if not subsidized by the European Union. The increase in rice fields is attracting more and more birds. The increase in godwit numbers in the past years is probably due to a combination of several factors: more rice fields, at close range to the traditional roost in the Tejo estuary, no hunting and no use of pesticides because the rice is used in baby food. Perhaps it is a coincidence but birds seem to prefer those fields that are sprayed less. Not only godwits have increased but also flamingo's and storks. The flamingos are becoming a problem since they can ruin newly sown rice fields when they are foraging. The same goes for storks that trample rice plants when they are hunting for (imported) crustaceans in September/ October just before the rice harvest. The company has a special damage control team that in some parts of the year run a 24/7 schedule to scare birds from vulnerable places. It was time to go to the field and although the weather was poor, we enjoyed several big flocks of in total at least 25.000 godwits and read almost 60 different colour ring combinations of a variety of ringing schemes. In this area most parcels were already ploughed and due to the heavy rains in the past 2 weeks, were submerged under about 10cm of water, offering plenty foraging opportunities to godwits. Foraging efficiency measures were taken by observing the intake rate of different individual godwits for 1 minute, we observed an intake rate of 15 ± 3 food items.min⁻¹ ($N=16$). The southern part of this area is dominated by grasslands grazed by horses and cattle. We did not see any godwits in these grasslands nor in the part on the north of the road that is dominated by other crops than rice or grass. We continued north towards the rice fields of Salvaterra de Magos (many stubble fields, hardly any ploughing), Benavente/ Paul de Trejoito (stubble), Santo Estavao (nice wet ploughed fields), Samora Correia (only stubble) but did not manage to find a single godwit. Soils in Giganta are mostly heavy clays while soils in the north contain much more sand. We stayed again in Vila Franca for the night.



The rice fields of Giganta hosting 25000 godwits



The rice fields of Giganta



Current agricultural land use in Giganta, Portugal (source: Rui Paixão, Associação de Beneficiários da Lezíria Grande de Vila Franca de Xira)

5 February 2017, sunny, 19 C

On this spring day we left the Tejo estuary and continued our tour to the Algarve where we looked for godwits in the salt pans of Olhão, Fuseta, Santa Luzia and Tavira. We only found a flock of 330 birds in the Olhão salt pans that were foraging, apparently on Chironomids. The ring density was low with 1 only

one ringed bird on almost 200 birds checked so perhaps there were many *Islandica*'s in this flock. The salt pans that we visited mostly contained a shallow layer of water 5-15cm deep and were free of vegetation making for an ideal habitat for godwits to forage or rest with plenty of opportunity to view potential dangers. Foraging efficiency measures were taken and we measured an intake rate of 19 ± 2 food items.min⁻¹ ($N=5$). In Tavira we encountered abandoned salt pans that were recovering with salt marsh vegetation. We drove into Spain and spent the night in NP Doñana in a house close in the reserve to El Palacio near Matalascañas.



Olhão salt pans

6 February 2017, sunny, 15 C, no wind

At first light we checked the marshlands opposite El Palacio. The marshlands were completely flooded and we saw many birds including ibises, ducks, herons and storks but no godwits. So we left this scenic place and drove to El Rocío. In the marshland opposite the village there was a flock of about 250 birds foraging on most likely Chironomids. But they were quite distant, up to their belly in the water and with poor light conditions. We managed to check at least half of the birds but could finish two 2 ringed individuals. Foraging efficiency measures were taken at around 11h00 and we measured an intake rate of 19 ± 3 food items.min⁻¹ ($N=8$). We left for Isla Mayor via the road past the visitor centre JA Valverde. We passed through vast areas of citrus orchards, olive plantations and plastic tunnel farms mainly growing strawberries. Huge stretches of land have been modified for agriculture in this area. It was fantastic to see how flooded the marshlands were between the visitor centre and Huerta Tejada. The Lucio de Lobo was a huge lake we saw many ducks and flamingos but no godwits. Later in Isla Mayor we met Rocio Marquez of the EBD and she explained that it has been raining quite a bit this winter but even more important is that more water from the Guadiamar River now streams into the Doñana marshlands again, like in the past before the disaster with the pollution of the mine upstream. We caught up and after that continued to Veta la Palma fish farm complex. The rice fields were ploughed and flooded with up to 5cm of water. We noted that sections of what were salt marshes in

the last 2 years had been drained and converted to “natural” cereal, Roccio mentioned that they were trying to establish quinoa crops since the rice crops had failed due to the high levels of salt, therefore there is a trend to try different agricultural crops in the area in addition to fish farming. In Veta la Palma we found at least 15000 godwits, mainly in the Lucio Cuquero Grande. The birds were quite skittish and first we did not manage to read many rings but finally we went home with 10 resightings. Foraging efficiency measures were taken (this was late evening 17h40) and we measured an intake rate of 14 ± 2 food items.min⁻¹ (N=6). This night we slept at Canada de los Pajaros outside Puebla del Rio.



The marshland opposite the village, El Rocio



Veta la Palma, Lucio Cuquero Grande, with approximately 15000 godwits

7 February 2017, sunny, 18 C, no wind, clouded in the evening

We met Rocio in the morning and were by 8:45 in Veta la Palma to find the birds again in Lucio Cuquero Grande. A big flock was foraging close to the edge, probably on chironomids. Unfortunately it was a bit foggy making ring reading difficult. But after 45 minutes the fog lifted and we had a good session of ring reading before they all went to sleep around 10:30 mostly on one leg. A marsh harrier passing over just made them sit further away in deeper water and we had to stop around eleven. But with 19 birds of our scheme and another 6 for other schemes it was not too bad. Foraging efficiency measures were taken from 9:00 until 10:30 and we measured an intake rate of 18 ± 6 food items.min⁻¹ ($N=11$), towards 10:30 it was clear that the group were settling down to rest and their behaviour started to alter between foraging, preening and sleeping. We tried to find more godwits in other parts of Veta la Palma but unfortunately we only found a group of 1000 birds in deep water and a handful of other birds. But we did run into a nice flock of 75 Spoonbills that, for a change, did not fly off immediately. We scored 11 colour rings in this group of different schemes; what an incredible ring density! We left Veta la Palma around 14:15 for a lunch meeting with Jordi Figuerola, senior researcher at the EBD, to catch up about the latest news and exchange research results and future work. After that we explored the rice fields of Isla Menor and Dehesa de Abajo but found no godwits. The water level at Dehesa de Abajo was clearly too high for waders. But we took some good data points for the research on habitat selection.



Godwits intently foraging in the early morning, Lucio Cuquero Grande, Veta la Palma

8 February 2017, 14 C, sunny, no wind

In the early morning we went straight for Veta la Palma to have a good ring reading session before leaving to Extremadura. But when we arrived at 9:00 all birds were already asleep in Cuquero Grande. Unlike yesterday none of the godwits were foraging on the shallow eastern shore within good ringreading distance. So we decided to scan the sleeping birds and were not unhappy with 12 ringed birds including 2 codeflags and 2 (Holwerd and Wolwega) out of 5 transmitter-birds that we could see,

from the movement updates, were in the lake. Before we left we counted the flock and estimated that about 13000 birds were present.

We left in the beginning of the afternoon and arrived in Extremadura around 16:00. We scanned the area around Yelbes thoroughly, found no godwits but took a lot of data points for the habitat analysis. We continued our search east of Santa Amalia and finally ran into the other team consisting of Egbert van der Velde and Wiebe Kaspersma that just found the night time roost. We made a coarse estimate that 2500 birds were present at the roost. We heard from them that the team of Jose Masero and Auxi Villegas of the University of Extremadura (Badajoz) would try to catch godwits tonight so we joined them. They were trying to catch birds for an experiment to establish differences in fat accumulation depending on the diet (rice or animal prey). Unfortunately they only caught 1 bird in the first round of mistnetting and after that we left to spend the night in Santa Amalia.

We noticed a different agricultural management system in Extremadura compared to both Portugal and Doñana. In Extremadura agricultural parcels are comparatively smaller and rice agriculture is one of many crop alternatives. Parcels were managed in a mosaic of cereal, maize, olives, wine grapes and orchards of fruit (mainly apples). In addition an annual grass species (much like *Poa annua*) had established on parcels that had been harvested before winter. Farmers were spraying large quantities of herbicides on these parcels resulting parcels covered in dead yellow grass and no visible activity by any bird species.



Jose Masero ringing and measuring the 1st godwit caught for the evening, near Santa Amalia

9 February 2017, watery sun, 12C

On this day we tried to cover large parts of the Extremadura rice fields to take habitat data-points and to find godwits. We started off in the area between Santa Amalia, Hernan Cortes and Medellin. Near Hernan Cortes we found two groups of 420 and 1225 birds, including the famous transmitter-bird Amalia! Most of them were foraging on freshly ploughed rice fields with a lot of water on them, and could be approached quite well. Foraging efficiency measures were taken from 11h00 – 12h30 and we measured an intake rate of 9 ± 5 food items.min⁻¹ ($N=16$). Foraging in the rice fields seems to result in a slower intake rate than in areas where the godwits are foraging primarily on chironomids, since the godwits spend much more time probing the substrate to find food items. Food items seem to be

unevenly distributed where some individuals only find a few food items and others find many resulting in the wide reward range between individuals.

In the afternoon we continued our search in the rice fields of Ruecas, Vivares, Alcollarin and Palazuelo. Especially in the last area there was a lot of suitable, wet and freshly ploughed habitat available but we did not find a single godwit; in the past we have seen many birds in this area. We decided to finish the day near Santa Amalia where we found a nice group of 2550 godwits at close range. But after 10 minutes a large tractor scared the birds and the whole flock eventually flew away. We heard many gun shots in the area during the whole day and probably also explains why the godwits were nervous, flying away at the slightest provocation. We finished the day cleaning the car...

Tomorrow we will drive back to Lisbon to catch our flight back home. Even though the main goal of our mission was not to read as many colour rings as possible, we were quite happy with 148 resightings (114 of 108 individuals of our own scheme and 34 from other schemes) and 15 Spoonbill-combinations. The Bird-Ring app was a great help to get the data in the database!



Godwits foraging in rice fields near Hernan Cortes



We found Amalia!

Conclusion

In Portugal, within the Giganta area, it was the general opinion of the people that we spoke to that the beginning of January was quite dry followed by heavy rains in late January, connected to a cyclone system present in the Atlantic. Indeed during our stay in Portugal it rained on and off all day. The result of all the rainfall was that all of the clay rich agricultural parcels were either flooded under 5-10cm of water or all the shallow dips in the parcels were filled with water. In addition the soil was completely saturated. A large majority of the rice parcels were ploughed, while a few remained as standing stubble left over from the previous harvest. This made for an unlimited, ideal foraging and resting landscape for godwits. We encountered a large flock of 25000 godwits here. We learned from Rui Paixão that the rice harvested from this area is used to produce baby food and therefore no herbicides or pesticides are used. Godwits were readily probing and foraging in the area with consistent efficiency between individuals. Likely, the absence of pesticides increases the availability of invertebrates, providing a rich food source to godwits in addition to rice kernels.

Moving along the southern coast between Portugal and Spain, namely Olhão, Fusetas, Santa Luzia and Tavira, we encountered godwits foraging on chironomids or resting in many salt pans, seeming to prefer salt pans with a water layer of 5-10cm.

Large scale landscape conversion to agriculture has occurred in the floodplains of Doñana, agricultural parcels are very large covering several hectares each. In the higher elevation areas citrus, olives and strawberries (cultivated in expansive plastic tunnels) are popular choices. There is little remaining of the natural Mediterranean scrub and step vegetation, save for the Doñana reserve. In the lower lying regions rice agriculture is dominant, although it was interesting to learn from Rocio Marquez that there is a trend for further conversion of salt-marsh parcels for the production of “natural” cereals such as quinoa. Again the majority of the rice parcels were ploughed and flooded either completely or with many shallow pools of water. Here we found the godwits concentrated in the Lucio Cuquero Grande, Veta la Palma. Here in the early morning and evening godwits spent much of their time foraging on chironomids with fairly consistent efficiency among individuals. We did not encounter any godwits on the rice fields, although it remains to be investigated how much time godwits spend in the rice fields at night.

In Extremadura agricultural parcels are smaller than in Doñana or the Tejo Estuary. Rice farming appears to be an equal cropping alternative among a mosaic of other options such as maize, cereal, olives and fruit (mainly apples). Many parcels were already ploughed after the previous harvest which leaves the ground bare during winter. At this time, in the early spring, annual grasses (probably *Poa annua*) have established on all of the exposed soil. In some parcels the ground was 100% covered by these grasses. Now that land preparation for the next cropping season is beginning, we noticed that many parcels were treated with herbicides killing off all plants that might have established. Nonetheless vast areas are used for rice agriculture and most were ploughed and flooded under 5-10cm of water or at least very wet with many shallow pools, with a few areas still containing standing rice stubble and plenty of surface water. We encountered godwits foraging and resting in the flooded fields with more variation in foraging efficiency among individuals i.e. individuals standing in close proximity to each other, widely differed in encounter rates of prey items. Likely, food availability being more unevenly distributed in the landscape than in the other areas we visited.

The habitat ground truthing data collection, for analysis with remote sensing data, has been successful in classifying 266 land parcels into different types of habitat – rice fields with different characteristics such as standing stubble, ploughed, flooded, dry or fallow; other agricultural crops which we specified as far as possible; wet grasslands used for livestock grazing; natural wetlands; salt marshes; salt pans and shallow lakes. With additional spatial information on changes in land use and the black-tailed godwit resightings database it should be possible to build a story about the varying environmental conditions within staging areas, how they have changed in recent years and the the stability or changes in

preferred areas used by godwits. However, we miss some information on the quality of different staging areas when compared to each other. To study the quality of different staging areas we would recommend further more detailed studies of foraging efficiency, quantification of food availability and sampling, identification and chemical analyses of prey items.

Summary of the people we worked with and spoke about the work we are doing:

Rui Paixão	Manager Giganta and Ponta da Erva
Nuno Gomez	European BTG Ringing Schemes Database
Rocio Marquez	Post doc EBD
Jordi Figuerola	Senior Researcher EBD
Jose Masero	University of Extremadura (Badajoz)
Auxi Villegas	University of Extremadura (Badajoz)



Até logo, Adeus amigos, Tot ziens, Oan't sjen, Until next time!

Portugal Team 1: Gjerryt Hoekstra (left) and Ysbrand Galama (right), 28 January – 5 February 2017



Sunday 29 January 2017

The first day to go into the field, its dry but cold. We have found the first groups of birds, but the area is closed due to a bike tour in the area of giganta ricefields! This makes it hard to get tot he birds. We decided to first check some other areas around porto alto.

Monday 30 January 2017

We found the group in giganta, there is about 20.000 birds on one meadow, but furtheron there are more flocks going around. The weather is cold, grey and rain every now and then. The ploughing of ricefields just started, the birds like this so it seems.

Tuesday 31 January 2017

Rain all day, the light is bad for reading but the godwits are active al the day. They are again around the airfield in giganta ricefields. They were really dispersed over an area and flying a lot, it was not possible to make a count.

Wednesday 1 February 2017

Nice weather! We counted the godwits, around 35.000 is our idea. The godwits are non active and from half past 8 they are just sunbathing, Around half 4 they start foraging and walking. On the end of the day the weather started to be less good. The godwits were divided in 3 big groups, standing in deep water.



The view of the week, just birds!

Thursday 2 February 2017

It starts with a little bit of rain, but the godwits are foraging. So we read colorrings, around 8.30 they start resting again, the weather clears. This was a good moment for counting. In total we count about 37.000 which is really a lot and its difficult counting when there is more than 10.000 on a meadow. All birds we found are in giganta! The surrounding locations were explored but we did not see any birds there. In the evening it became nice weather with lots of bird activity and a lot of foraging on the fresh ploughed fields. We could read almost a 100 of our own marked birds.

Friday 3 February 2017

Friday we spend also in giganta, there where 3 big flocks and about then ricefields with small foaraging flocks. Jos and Ruth mostly checked on the small groups, since they where looking at habitat of the ricefields. While we kept an eye on the big flocks, not really an efficient thing to do since they barely move during the day. Still we made a pretty good score. The weather was rainy and grey again.

Saturday 4 February 2017

It was rainy weather, the birds where in one big flock most of the day, except for a few thousand birds that where foraging. It was not the best day for reading, but we manage to get a 70 each of our own schemes. Al the day it was grey birds sleep from half past 9 in the morning. They don't seem to be hungry. By counting we still think it's in between 35.000 and 40.000 birds.



This icelandic bird lost a part of his leg.



The sun goes down In Giganta ricefields.

Sunday 5 February 2017

It was finally nice weather and we went to the ricefields of giganta again, read some rings, but half way the day we had to go to the airport to pick up the following crew. In the evening we showed them the places they could find the birds and had some chit chat. We still managed to read some rings also. We are a bit sad that it was all the time bad weather and that the sun is there when we leave.

Portugal Team 2: Maarten Hotting, Wim Tijssen and Siebe Bonthuis (6 to 9-2) from 5-2 to 14-2-2017

Sunday 5 February 2017

For the third year for me(Wim Tijssen) and the second time for Maarten Hotting. In 2014 Wim and Maarten formed a team in the first period, and this year Siebe Bonthuis(ringer and observer of godwits in province of Utrecht) will join us for 5 days to see where his own ringed godwits stay during migration. The first team, Ysbrand Galama and Gjerryt Hoekstra pick's us up at the airport. So far this year it were wet and cloudy conditions in the first period of the research for them.

After changing the driver-formalities for the car-rental, we are able to see some ringed godwits in late afternoon with the four of us in one car and luggage... While Ysbrand and Gjerryt tell us where the birds have been staying the last days. We still have an hour in beautiful light in the afternoon, to have a look at the godwits with the four of us.



Ysbrand Galama(always recognizable by beret) in action from the roof of the car in the last light of the day, after picking us up from the airport.

The new place to live for the teams is located in Villa Franca de Xira, much closer to the Giganta ricefields. And, most important, a much better and convenient place to sleep, work and have diner in the evening as in the last years. A warmer and cosy place to stay and even breakfast in the morning, makes it a much more pleasant way to do research in the area.

Monday 6 February 2017: First day in the field!

On our first morning, Gjerryt and Ysbrand explain all about where to have breakfast in the small city with narrow roads, and where to park our car along the steep narrow road's in the neighbourhood, and then we bring them to the airport. We take Siebe Bonthuis, who arrived in the meanwhile at the airport, immediately into the Giganta/Ponte de Erva ricefields in the end of the morning at 10.00 hour. When we arrived, we saw several groups flying into the east to look at other places, but enough birds stay, so let's start ring reading! A group of 4.00 and 7.100 are in two rice fields. Sunny, almost no wind and lots of godwits(38.000 was the latest count by Gjerryt and Ysbrand)) close to the airport strip makes it a nice start of the research-period. The weather is even a bit warm, after a while it is really T-shirt weather, but also the birds think about this.... So after a while they are almost only sleeping on one leg. Siebe and Maarten stay in the car with the birds in front of them, while Wim mostly works with his telescope in the field.



Already spring in the air on our first full day in the field, flowers and godwits, what do we want more?

In the later afternoon, we still have the sun in the right position for the birds, the wind is also in the back. So good ring-reading circumstances, especially when the birds start feeding again in later afternoon. Wim films and takes pictures of transmitter bird “Leons” through his telescope for some footage on Facebook and Twitter for the ‘Homefront’ in the Nths. In the end of afternoon big flocks of birds turn back from east and we make a roughly estimate of between 35.000 to 40.000 birds who come to sleep near the fields of the landing strip! Also transmitter bird “Jellum” shows up. Good first day in the field and lots of birds and rings make it a fantastic first day in the field!



Transmitter bird Leons was foraging just in front of us, and shows us how flexible the beak points of a godwit are!

Tuesday 7 February 2017: Giganta rice fields, Spoonbills and a sick Wim

Weather: 10-14 C, light rain and cloudy in morning with colder wind(N 2 to 3B). Afternoon sunny and almost no wind.

A cloudy and a bit rainy start of the day. We start in the west side at 08.30 but no godwits at this place. When we arrive at the airfield-area we notice the same pattern as yesterday, we lose some big flock's around 9.30-10.00, which fly directly to east at high speed and level. So there must be something to eat, maybe in the Belmonte rice fields like last year? But enough birds stay to make it worth for us for collecting data and rings.



One of the four E-birds we read from the very small remaining population in the UK, with 40 pairs in the Nene Washes and 3 pairs in the Ouse Washes.

The E-birds from the Nene and Ouse Washes are very well known by me, because I visit every year this area for the Bewick's swans. And also gave the RSPB and the WWT some advice how to manage the field and the predators, and discussed the problems they have to deal with. Not easy, because they also have the problem of chances that their broods can be flooded some times in this area's.

Wim is feeling not well at the end of the morning, did he sit too much on his bottom on the wet little dike yesterday, or a cold short night, or was it a bit too cold outside ring reading in a bit rain and wind? But it feels not good... and when the rain is getting heavier at 13.00 we decide to have a coffee break at our 'birdy' local pastelaria. Although the weather is clearing and the sun is shining after our break, for Wim the day is over, too ill, so Maarten and Siebe bring him back to the hostel, to rest and recover. Maarten and Siebe have the best afternoon for ring reading... the godwits almost walk into their car, so they have many rings to read! No evening diner and still ill, but Maarten and Siebe bring some tea and soft rice-cookies to recover for him.

Maarten and Siebe try out the BirdRing App, made by Mario Huizinga, to bring in their observations in a

few click's in the database, and it works really well for the RUG-godwits!



Easy ring reading from the car and the birds on the right side by Maarten and Siebe, but there is only place for two, so Wim is mostly out of the car in the field.

Was this the reason getting ill...???

Wednesday 8 February 2017: Wim recovers, Spoonbills and again in the Giganta.

Wind NNO-2B, temp. 10-13C, no rain.

The weather is again good, a bit cold in the morning but Maarten and Siebe enjoy. They read almost 40 rings of Spoonbills from the group which stay's for a few days in the area, after the better godwit ring reading in the early morning while they are more foraging. Wim feels a bit better, but the best decision is to stay at home in the morning, working out the ring records and start up in a warm and cosy room.

At lunch time Maarten and Siebe pick him up for the Giganta and the weather is really nice in the end of the day. Again birds come back to roost near the airfield-strip from the east, so must be a good idea to find out where those birds go to during the day. Also big numbers of Glossy Ibis come from the east to roost. We look every day at the tracks of the four satellite transmitter birds, to see if they make some trips to the Belmonte or other rice fields north of Samora Correira, but that is not the fact so far.

In the evening we decide to do tomorrow the 'southern tour' to the Setubal and Alacacer do Sal area in the Sado, 100 km southwards. Specially because Siebe has never been to Portugal, this is for him a nice opportunity to see some of the land(scape) and more then only the Giganta rice fields... But we decide to first go to the Giganta-area to still our hunger for colour rings first until ten o'clock, and then leave for the Sado area.



Enormous flocks of Glossy Ibis approaching the roosting place in Giganta

Thursday 9 February 2017: To the south, after a cold and early start in Giganta.
Weather: Wind NNE 2B, cold start 5C and 50% clouds later on more sunny spells



First ring reading in the Ponta d'Erva rice fields, in our hunger for colour rings, before leaving for the southern Sado-tour.

In the Giganta area it looks that the proportion of Icelandic godwits is increasing, maybe even to 40%, because we see good number of more coloured birds. We leave exactly at ten and first visit the Aqua da Moura and Zambujal area after some good ring reading under perfect weather conditions. When we arrive at the Aqua da Moura area it seems that more and more rice fields are turned into cattle areas.



Rice stubble fields, which are not interesting for foraging godwits and more and more cattle grazing in the Zambujal area makes it less important for them.

At the old bridge to Zambujal we see a flock of 139 Icelandic godwits and pick up one ring! We thought we should read NONE, so a lucky day! We check at least 200 redshanks for Wim's colour ring project, but no luck... Five fishing Caspian terns and a few Sandwich terns during our lunch with Wieringer Jodekoeken make it a complete nice day! Further on in the Monte Novo-Palma area we also visit the Pinheiro rice fields, but we don't get a permission from the warden to have a look in these fields. But we find a flock of 450 Flamingo's which are more and more seen in ploughed rice fields areas. And we succeed in reading many rings, despite the windy conditions. We also find a track which leads us to more fields and at the end a nice view over the Sado! With only one hour of light left we head the Alcacer do Sal area. Lots of ploughed fields, but mainly to dry and very good managed and maybe not interesting enough for godwits. It is too dark to check the other side of the river, and rain is forecasted if we take a look at the sky. So we decide to have coffee and drive back to Villa Franca de Xiro. At Porto Alto we do the shopping on our way, and decide also to have diner in our cheap restaurant along the N10. For 30 Euro's, including wine, beer and everything, we think that this is better than cooking ourselves! A very nice and good day, which again proves that the Sado area is not interesting any more for the godwits...



This is the wrong species guys.... Too long legs and pink-rosé white colours!

So after all we made a good decision to first read some rings early in the morning in the Giganta, and then leave for the southern tour. The landscape and the views are great in this area, that also did make our day! And Wim did a check on 250 redshanks on the riverbanks near Setúbal, sadly enough no ringed redshank of his colour ringing project, but y'll never know...

Friday 10 February 2017: Where do the 'eastern foragers" go to? Last day for Siebe...

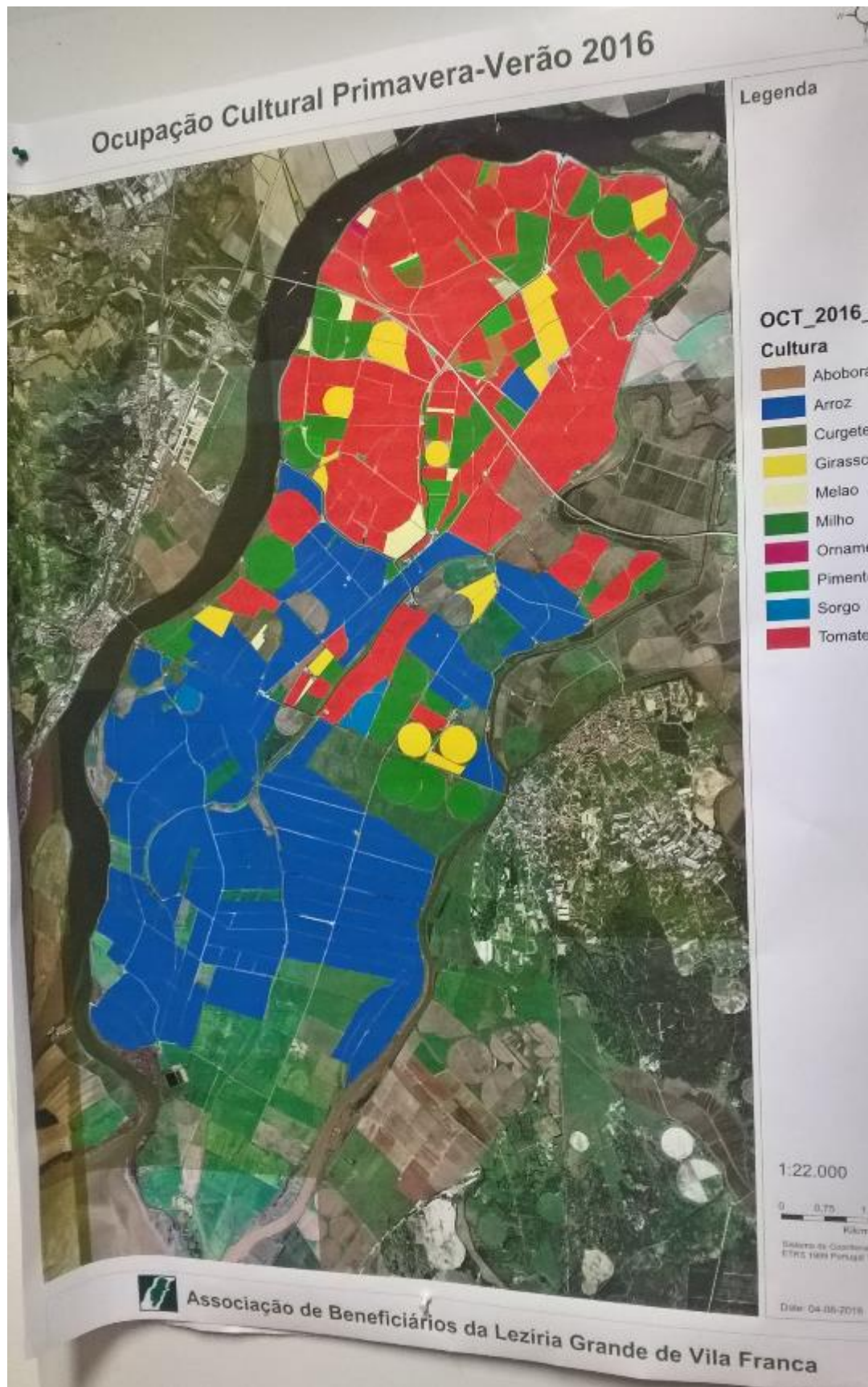
Weather: Wind SE-3B, cloudy start of the day, later on rain and hail, ending in sunny and eastern wind 3B after 14.30 hour.

Every day when we enter the gravel road in the Giganta there is a Black-shouldered Kite sitting on a pole, which surprises us every day. Because Maarten wants to make a good picture form this bird, but he is always too fast, or Maarten is approaching the bird too close, so that he is always smarter then Maarten. But today we have a Short-eared Owl very close on one of the side-paths who looks at us, picture by Siebe



Short-eared Owl in the field, always very nice to see – picture Siebe Bonthuis

We start at 08.15 in the Giganta on a very cloudy and dark day, wind turns up during the morning and ring reading is a bit hard, but we have the birds on the right side of the car. The Marsh harrier is scaring the godwits a few times, so lots of movements and that keeps ring reading effort so interesting. Wim films this special scary moments for the birds. And we notice that some smaller groups return all ready during the morning back from??? At 12 o'clock it starts raining heavy, so we are off for coffee and some lekkers....? After lunch we go to have a look in the fields NE of Samora Correia, area D(west part of Belmonte rice fields) is only stubbles so not good for the godwits, they like it 'ploughed and wet'. Other parts N of Samora(B and F) are partly ploughed and looks good, but only good numbers of Glossy Ibis. We also check some fields NW of Samora(I and B) but heavy rain and even hail makes it almost impossible to have a good look. Area I looks green and good for cattle and B is only rice stubble field, so not good for the birds, although the ploughing tractor did the first rounds in the field, so maybe good to come back here in a week when the ploughing has started. At 14.30 we arrive at the rice field station, because we wanted to check our electric pass for the gates in the Giganta, on Tuesday we arrived at 18.15 and we were not able to open the gate, so maybe something wrong with it?



The map of the Giganta, in blue the rice fields from 2016, around 4.000 ha.

Rui explains that now the gate will be open until 19.00 because of the lengthen of the days. And that they changed it just one or two days ago. He is very helpful and tells that the area is expanding in rice

field, they now have 4.000 hectare of rice. We get a nice map printed about all sorts of fields in this in area. But for the Belmonte rice fields we have to call other people for the admission and keys, because this is not his area to care... So we decide to phone Rui Alves in the late afternoon and make an appointment with him that he will bring the key for the section E of the Belmonte rice fields. Because of the approaching weekend this cannot be arranged earlier, but we are very glad to have contact and that we can enter the area next week.

In the later afternoon the weather is better and even very nice and sunny. We end at the huge flock at the small airfields-strip. We made a count of around 35 to 40.000 birds, and the godwits are so now and then piled up....! So this is the best way to end the day especially for Siebe on his last day, although a bit early. We have to stop at 16.30 because Maarten brings our friend Siebe to the centre of Lisboa where is wife Trudy arrived all ready for a nice 'city-weekend' in this beautiful city along the river Tagus. Siebe succeeded to read 5 of his own ringed birds. He ringed 26 in 2016, so a very, very nice result!



We ended the last day of Siebe with the godwits sometimes piled up....

Saturday 11 February 2017: First day with the two of us(Wim and Maarten), Belmonte and Benavente rice fields check.

Weather: Clouds 50%, temperature 8 in morning, wind ENE 3B, a light rain until 9 o'clock, later on some sunny spells. End of morning and beginning afternoon dark clouds, light rain and very low light in end of day.



Huge flock at the start of the day, but lots of them fly to the east...

We start in the early morning (08.15) in the Giganta, we see immediately groups flying to the east and also to the north, although a good group stays at the sleeping field close to the air-strip. But where are these groups flying to?

We leave the Giganta area at 10, after checking almost all birds in this flock. And we decide to check some areas northeast of Samora Correia and Benavente, to find out where these godwits from the Giganta in early morning fly to??? There is a big bridge on the highway A13 where we have a good view over the eastern part of the Belmonte rice fields, so let's try! Although it is a highway toll-road, maybe it is worth to check. At 10.40 we stop illegally at the bridge on the A13, because just below us a flock of 2500 birds is foraging in not too deep water on a rice field. The birds are on the right side for Wim and Maarten reads some rings from the tripod in the car. Wim succeed in reading 22 birds and Maarten 10 in a short time, we stood there for 40 minutes illegally on the highway. So you are feeling not safe, although the highway is not too busy. But if a policeman is checking us, we can get a penalty... But we are glad that we found some birds back, and are looking forward to get into the area on Monday, when we have an appointment at 10.30 for the closed gates for those fields with Rui Alves from the rice company. And now we are sure that there are godwits!



A nice flock to read from the bridge of A13 at Belmonte rice fields, illegal to stop here but for godwit rings we make an exception...

After this nice unexpected event, we check the area between Samora and Benavente, and despite some good conditions for foraging we only see Glossy Ibis in this area and lots of gulls behind a ploughing tractor. The weather is becoming more cloudy and rainy as we check the area H, NE of Benavente, where we have free access to this rice fields. They look in good conditions for foraging godwits, so we decide to go into the field, accessible by a dirty dike road... It is a bit tricky to ride on this dike, because of the wet conditions and having not a four-wheel car, but Maarten is a good driver and we manage to find our way. Although Wim, sitting in the back, has some nervous and bumpy moments, because of not having an overview in the back...

A flock of 40 Spoonbills is our deal, sadly enough no godwits. But we manage to read some rings on them and see some nice birds in the ditches.

On our way back to Samora Correira we check the north bank of the Belmonte rice fields to maybe find a free way to check these fields, but all gates are closed. At 14.30 we are back in the Giganta rice fields. But the godwits are not in the best positions for ring reading (on the back of the fields) and the light conditions are very poor by the dark clouds. At the end we check some small foraging groups, but because of the poor light the change of making mistakes is very real (which is proved by the input in the database in the evening of some ring readings...). We met Alfonso Rocha and his team, who want to check where the godwits are sleeping for a catch next week in the area with José Alves from the university of East Anglia (Norwich). He said that there was a big flock in the western part of the Giganta, so must have a check there. As we do in the last light, and we see lots of birds in to deep water for ring reading, but lots of godwits. So tomorrow we going to check this part. When we check the rings which we read on the bridge along the A13 over the Belmonte rice fields in the evening, we found out that from the 10 birds from Maarten, 5 were seen by Wim, so we missed still a lot of rings and find out that in this area new birds showed up! And Maarten finally founds a very good pizza-restaurant a few kilometres away from Villa Franca de Xira, the best in town!

Sunday 12 February 2017 Giganta, complete check!

Weather: Forecast whole day rain..., but it is even dry and sunny and 8 to 13C!

We start a bit late... Wim is not too early out of his bed, so we start at 08.30 in the field near the small airfield as usual. A rainbow and beautiful dark showers in the background and flying flocks of godwits, scared by Marsh Harrier, make it an impressive start of the day! Wim films the Shovelers and Common teals which are also foraging together with the godwits, and makes beautiful pictures of this special scenery.



We had an almost white godwit in the morning, but there were two...

At 12 we stop, because we checked almost every leg in this flock of 6.000 godwits during the morning. Maarten succeeded also to read 3 saddle nose on female common teals, so a really successful morning! After a well-deserved coffee break we decide to have a check in the Cara Larga area on the north side of the N10, still under perfect weather conditions, while the forecast was so bad! We manage to read a Lesser black-backed gull from Roland-Jan Buijs from the Nths and two Short-eared Owls are close enough for good pictures by Maarten.

At 14.00 we went into the western part of the Giganta in the fields R/M, and we see immediately the

flocks back from yesterday. Only the water level in these fields is a bit too high for ring reading and it is also too early in the afternoon. Most birds on one leg, but during the afternoon closer to sunset, birds start to forage a bit more. So we are able to read more rings, although the circumstances could be better...



And again a white one, this bird completely white, godwit in the western part

At 16.00 we decide to go back to the airstrip in the Ponta 'd Erva/Giganta area where colleague Dirk Tanger and Jan Vegelin show up to join us in the last light. But the numbers are low here, it seems that birds have chosen to feed and sleep more in the western part of area.

Rui Alves texted that his colleague José-Luis will be at 10.30 at the first green gate on the left on the N10 after Porto Alto, for the access to the Belmonte rice fields tomorrow. So a good sign that we made a perfect appointment.



The fields in the west parts were ploughed in the second half of our period, so the birds changed to the western area, the Cardal entrance in the R/M fields

Monday 13 February 2017: No key, closed gates and new team to arrive.

Weather: Sunny, dry and a 10-14 degrees, wind ENE 3 Beaufort

This time an early start, 07.50 in the Giganta, also Dirk Tanger and Jan Vegelin show up later on. When we enter the Giganta we are very sharp to get 'our' Black-shouldered kite in the right position on the poles, and the weather is good for pictures early in the morning.



Finally Maarten gets good pictures from his so eager wanted Black-shouldered Kite under good light conditions.

The rice farmers started to be in the field with a tractor, especially in the fields which were the most important for the birds last week. The numbers also have dropped down in the fields close to the air-strip, not more than 5.000 this morning. The tractor is making tracks in the fields to let the water a bit out and this off course also disturbs the birds in the end, although the low water level made it less attractive for them.



The tractor is making track-waves in the field to make the water flow off the fields, but the godwits trust tractor very long...

So at 10 we leave the area for our appointment at 10.30 at the green gate for the Belmonte fields. We are there at 10.15, but no one shows up... at 10.45 a Portuguese shows up to get into the gate, but this is now our men José-Louis, but a George who does not speak English. And it seems to me that his does not know about a kay-appointment. He offers us to go with him in the field, but we still have an appointment with a José-Louis, and how do we get out when he has locked the gate? So we decide to stay and wait for our 'real' appointment with José-Louis. I am sending an SMS to Rui Alves in the meanwhile and at 11.00 o'clock try to phone him, but... no answers. At 11.15 we decide to look if there is maybe someone waiting for us at other green gates along the N10, but this is not the fact. So really disappointed we leave the area, although the weather and the song birds along this nature-reserve with the already flowering Broom, was okay...



Waiting for the key of the green gate for the Belmonte, but no one showed up...

We decide to have a look in the area south of the Samora Correira, where one of the satellite godwits has been during one early morning. These rice fields are close to our old sleeping place from last years, but how to we get into those fields? We figured a bit out last evening, but we only find a very rich farm with a small view on rice fields, but all gates are closed and no one around to contact. Maarten is really set up after waiting and driving around with no godwits, it feels like a wasted morning... So we are going back to the Giganta, where we jump into the western area, but al birds are standing in too deep water and on one leg... So we decide to go to the end of the Ponte d'Erva/Giganta to have a look in the nature reserve and the visitors centre. Which seems to be closed on Monday... but well, it is nice weather and we are enjoying other birds. At 16.00 we are back in the western Cardal fields, called R/M, along the always open ate in the west. We approach a big flock of 16.100 godwits in a bit deep water, but birds are starting to forage.

Wim decides to enter them from another side and walks the way back, looking for a place where the birds are more feeding on the other side of the field. It is always good to look from several points, so that we can read more rings. And it worked out well, we both have a part of the flock under control. And although the water level is a bit too high, this is the best we can make of it in the field...

So at the end of the day at 18.00 we are finally satisfied! It could have been a much better day. Rui Alves send an SMS and excuses for his colleague José-Louis who totally forgot his appointment... The good news is that tomorrow we can pick up the keys for the Belmonte at their office during the morning in Samora Correira. Maarten picks up Jacob-Jan de Vries and Bob Loos at the airport in the early evening, while Wim is putting all his ring readings in the database. We have a nice diner again with the four of us in the best and cheap pizzeria. And during the evening we make Bob and Jacob-Jan clear where the birds are, and showing how the database and the BirdRing-App works, so good preparation for tomorrow!



The new team, Bob Loos and Jacob Jan de Vries studying the database, the BirdRing-App and of course explanation about where to look for the godwits!

Tuesday 14 February 2017: Giganta and Belmonte rice fields and change of teams

Weather: 14 to 17 C sunny spells and some light showers, rapid changing weather circumstances during the day.

For Bob Loos and Jacob Jan de Vries it is the first time in the Tagus estuary, so lots of new things to discover and also exciting of course. With the four of us we have immediately good weather and ring reading circumstances in the western part at the RM-area. With a nice foraging group so good to take a sample for colour rings for Roos Kentie, and we practice together the scores of colour, stripes, back-stripes and fat. And also about the discolouration's of some rings and all ring-schemes from different projects can be tested and explained in the field. Very nice and good to do this together, to have a good work out for the overtaking team, especially because it is all new for Bob and Jacob Jan. Although they are very keen ring readers, after being in the Banc 'd Arguin area for 4 weeks! But godwits is a speciality and we all four were happy to practice this in the field.



The new team in the 'practice field' at the Cardal-R/M area, with a nice foraging group, also to take some samples for Roos Kentie about ring-density

We also managed finally to pick up the key for the Belmonte rice fields at the office of the rice company the Lizerias in Samora Correira. And we were able to visit the area, sadly enough 6.000 godwits mostly standing in to deep water. But we also made a mistake in our enthusiasm to approach the flock a bit too fast. A big part of the group goes into the air... Huge flocks are better to approach a bit further away, because you scare them easier with so many birds. A smaller part of the flock comes back and is standing into deep water, so only one ring is our deal... We also check the western side, but only stubble rice-fields, not suitable for godwits. But we know there are birds here, so good to know for Bob and Jacob-Jan for the rest of the research period.



The second and third team in the Belmonte rice fields, beneath the A13 bridge

But we have a good impression of the area and Bob and Jacob-Jan certainly will come back to this 'hidden' area. In the later afternoon we introduce them to our favourite bakery-lunchroom with the birds on the wall and the Pingo-Doce for the shopping. We ended the afternoon with 4 man looking at one code flagged godwit in too deep water, which costed us almost half an hour. Only Maarten as the most keen, quick and youngest ring reader succeeds in the complete code... That tells enough..., so Maarten and Wim have to pack and Bob and Jacob-Jan bring us to the Lisboa airport. Maarten succeeded in reading 531 different rings of all ringing schemes, in 2014 he managed to get 506 different birds, but a bit more ring readings. So it was a very successful trip, with a bit less birds as in 2014. But no complaints about the weather, the new place to stay and the good company or friends with the same passion for birds and ring reading!



The second team in 2017, enjoying the "Wieringer Jodekoeken" as lunch!

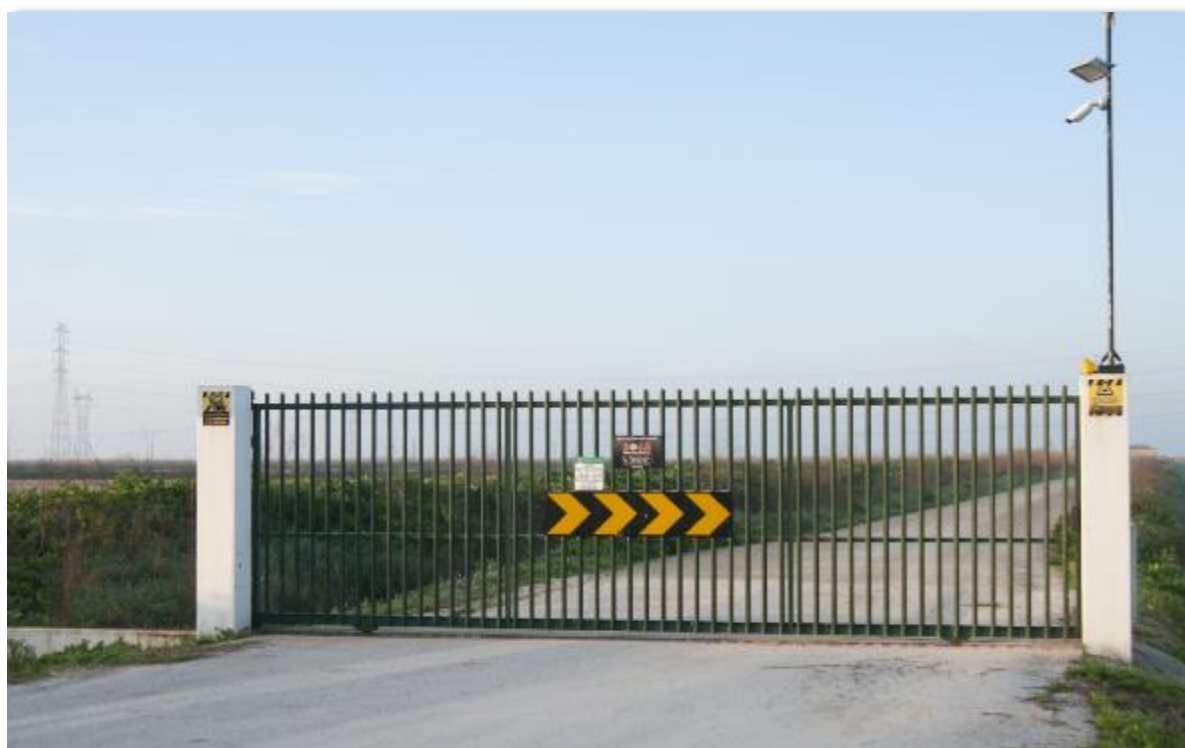
*Wim Tijssen - Westerland,
Maarten Hotting -
Purmerend and Siebe
Bonthuis - Houten.*

Portugal team 3: Astrid Kant and Ronald Messemaker

15th – 19th February 2017, Godwit Shangri La at the Giganta Rice Fields, Portugal

Our journey began very early at Eindhoven airport – an ideal location given how close we live. At 10am local time, three hours after leaving Eindhoven, Ryan Air delivered us to the beautiful city of Lisbon. February is not a busy month for tourists and everything, including collecting the car, went very smoothly. Thirty minutes north of Lisbon we arrived at the famous Vila France de Xira – also known as Little Lisbon.

We have visited the place before and didn't waste any time heading to the Office of Agriculture where Rui instantly recognised us.



He had been briefed by Jos Hooijmeijer and we received our magic passes for entrance to the Rice Fields. You pay 25 euros deposit which Rui carefully stores in an envelope for you. We also gave Rui a Birthday Calendar, with waders and their chicks – now he doesn't have an excuse for forgetting our birthdays.

Having arrived at 10, by 1300 we were standing next to a huge fence in front of the entrance to the Giganta rice fields. The pass appears to have magical powers – the door swings open and a world of waders opens up before us. The area appears bigger than we expected. You can divide it to three distinct areas, so called basins, that keep standing water in place for the rice. The Black-tailed Godwit often sleep here, standing on one leg in deep water – this doesn't make reading the rings very easy. Then you come across the real rice fields that in winter are covered by about 10cm of water. The fields are regularly ploughed and the loose soil is the perfect place for Godwits.

In the south of the rice fields you have the less well known green part – real grassland. Here cattle graze alongside a couple of large bulls, that I assume will end up in the arena. Even in Vila Franca there is a Bull Ring but it's hopefully not used in February.



Entrance of the Giganta Rice Fields



Ploughing the Rice Fields in winter



The map shows the most important Black-tailed Godwit sites marked A to D. At the bottom, on the southern tip is the greener, drier part. These areas are not so popular with our Godwits. The lighter parts are mudflats that are occasionally ploughed by the farmers.

After some wandering about at the same place as last year, I saw many Godwits (A). We soon discovered this route was chained off by the farmers. There is one key available for the whole club, but it seems a long way to go back. But we had a plan. We had intentionally chosen a low roofed vehicle – which with a bit of wiggling, we managed to pass underneath the fence and explore. We quickly found a group of 3000 Godwits feeding for the night.

At seven o'clock we return to the famous hostel DP in Vila Franca da Xira and crash out for the night on a lumpy mattress. The town is beautiful and the views are breath-taking.



Sitting from the car with the telescope on a bonnet bag is the most comfortable and least disturbing way to watching the birds.



Your car is the best hide!

Day 2, February 16, 2017

Opposite the hotel is a Mercado, an indoor market hall that opens at six o'clock. They sell cheese, fruit, fresh fish, meat, bread the list goes on. They also serve excellent coffee and fresh pastries. We buy a bag of goodies for lunch and head in to the fields.



There wasn't much to see until around 1300 (B) when discovered group of about 6000 birds feeding. After about 3 hours I had managed to identify 24 different ring combinations. We also met Dirk Tanger and Jan Vegelin – two more Godwit-Gurus who has travelled down from Spain. We had already met Mario Huizinga and Jouke Altenburg, they were with us on the plane.



Godwit's and Ruffs are not to be missed here: if you see one, you'll see a lot!

This was a good time to place an infrared night camera. Giganta is crawling with mammals so we tied a can of sardines to a pole, set up the camera and wait until morning. There is a chance of seeing fox, Egyptian mongoose, brown rat, wild boar or another predator. The day passed, and we ended up in the "all you can eat" Japanese in Vila Franca. A wonderful moment after an energetic day. Back in the hotel room we did the necessary administration and database entries – this prevents confusion. The beds are getting better.

Day 3, February 17, 2017

Seven o'clock breakfast at the market - the ladies at the coffee corner are already recognizing us. They had already had some crazy Dutch people over for the Godwits – I don't think they really understood.



At half past nine we are parked by the big fence of Giganta rice fields looking for big groups of Godwit. In box D it was a bustle of activity. These are basins full of water, so high that there is no visible earth, the Godwit are wading in deep water, in the background is the graveyard of Vila Franca da Xira. It produces an eerie and wonderful scenery.



In Box B (see map) we discovered nearly 8000 Godwits. It was difficult to see them, they were also walking in deep water but we managed to identify 8 ring combinations.



We also found the now famous Leucistic female Godwit. This is an almost entirely white bird – though not a true albino – they have no red eye.



The days are spent with our eye glued to telescopes – must for reading the rings on the birds. The weather was beautiful, the image is crystal clear, the water like a millpond

Outside the park there were more Godwit freaks and occasionally a farmer or hunter – but for us, here, we're totally alone and in our element. Just before dark we went to box A, my favourite place. I held the chain up and Ronald drove the car under it. It was quiet in the rice fields, and as the sun set we encountered a large group of sleeping Godwits – they were doing their best to hide their rings from us.

The hotel provides a nice shower and power for the laptop before we go and check the night camera we had set up. A Brown Rat came down on our can of sardines and a fox had a good sniff at the camera before the batteries packed up.



Day 4, February 18, 2017

The last full day. As usual, seven o'clock breakfast at the market, have a good chat with the ladies then head out, the bags recharged with fruit and bread for the day.



We started our search for Godwits in A (see map) where we met Dirk and Jan and later Bob and Maarten, it became quite a party. It's great to see a large group of 3000 Godwits together with more flying in as we watch.

I had been told of a great lunch spot from Ysbrand and Gjerryt in Samora Coreia: so Dirk, Jan, Ronald head out to enjoy in the local delights.

Afterwards we head to the nature information centre to the south of the rice fields. It is place for information about the area, nature and there is always something to see from the viewing hut. By the evening, the Godwits often come together to spend the night on the big puddle, so we went again to point A under the chain. It was great to see a group of 20,000 Godwits from the car. No surprise, we read more than 70 combinations. Night fall comes quickly in February and you have to leave the area around six o'clock before the fence closes and your card don't anymore. A successful end to our expedition. Strange to suggest that some Godwits will be at home earlier than we. They have another 2000 kilometre to go.



R5LBLY back in the Vijfheerenlanden, the Netherlands

Day 5, February 19, 2017

Six hours left, key dropped at reception we head out to say goodbye to Rui and thank him. After a half an hour drive to the airport we're ready to check-in for our flight home and leave the warmth and beauty of Portugal behind us.



Black-tailed Godwit feeding in farmers wetland; Home Sweet Home....

Some useful tips.

- There is a great market indoors opposite the Hostel, which I believe is open at six o'clock and where they make nice breakfast for you. You can also buy bread, fruit cheese and yogurt to take along the field.
- Outside the market wall is an ATM.
- A small supermarket is nearby, you can see it from your hotel. It's a narrow street to park, here too a small car is practical.
- Parking is free around the hotel. For the market only after nine o'clock.
- Restaurants are abundant the all you can eat Japanese at the beginning of the town is highly recommended, the price is incredibly low.
- In the Hostel there is good Wifi
- In Samora Coreia / Porto Alto there is a 24/7 car garage where you can wash your car for a euro (or two) day and night, soak and vacuum. Enter the village from Vila Franca after the bridge on the first roundabout to the right. You approach a next roundabout there, you go to the right. There is a big BP fuel pump that passes you. Then after about a hundred meters you have the carwash on your right.
- And remember, it's an hour later in Portugal.
- By February, Spring is well underway. The White Storks are already clapping their nests, the Meadow Larks cheer them on. In the southern part, Common Stonechats, Pied Wagtails and Swallows are migrating. Zitting Cisticola, Corn Buntings and Cetti's Warblers are making their distinctive calls. Short-eared Owl, Black-winged Kite and a rare Pallid Harrier were the cherry on the cake. So... opportunities enough to make beautiful pictures and worth to come back again next year.



Car before clean up.....

Astrid Kant & Ronald Messemaker, Gellicum April 2017

By-catch (More birds to find beside BTG)



Corn Bunting (R. Messemaker)



Common Stonechat (R. Messemaker)



Zitting Cisticola (R. Messemaker)



Glossy Ibises at dusk (R. Messemaker)

(Photo credits Astrid Kant and Ronald Messemaker, copyright 2017)

Portugal team 4: Jacob de Vries and Bob Loos, 14 - 24 February 2017

13 February 2017

After a smooth flight we arrived at 19:10 at Lisbon Airport, where we were picked up by Maarten Hotting, who took us to the apartment in Vila Franca de Xira. After a nice and very pleasant pizzeria dinner Maarten and Wim Tijssen made it clear to us where we could find the birds, and showed us how the database and how the BirdRing app works. This was new for Bob but Jacob has already used it many times. We were now well prepared for the forthcoming days in the Tagus estuary!



14 February 2017

For Jacob and Bob it was the first time to visit the Tagus estuary looking for colour ringed Black-tailed Godwits. We were very happy with the fieldtrip in the territories of Companhia das Lezírias together with Wim and Maarten, and their comprehensive introduction to the area. We scanned some birds together and it was confidence-inspiring to conclude that there was a match in all our scores of breeding plumage and abdominal profiles. (Of the Black-tailed Godwits, not ours!) In the late afternoon we brought Wim and Maarten back to the airport and changed the rental agreement of the car. They told us that we had rented a black car, we thought it was orange brown...

15 February 2017

Usually cloudy, but some sunny periods 17°C, NE 2-3. Porto Alto, Cardal, SW-corner.

We started at 8 o'clock sharp in the SW corner of Cardal. An Osprey ate a large Roach on an electricity pole but a 2cy Glaucous Gull located in a group of resting Lesser Black-backed Gulls stole the show. Glaucous Gull is rare in Portugal but this winter there has been an influx of Glaucous Gulls in Western Europe, mainly 2cy birds.



The Black-tailed Godwits were feeding, but unfortunately they and all other birds (Shoveler, Teal), were disturbed by a hunter who shot three times. This was the first and last time we were aware of hunting activities in this area. As far as we could see the lonely man with his dog was hunting for ducks and/or snipes, but he was not successful. After the first shot we found a group of approximately 273 resting Spoonbills of which at least 12 were colour ringed. After the second shot the Spoonbills flew away at high altitude but one hour later we found a group of 88 birds and now we had the opportunity to read the colour rings and flags. The Black-tailed Godwits were feeding a few hundred meters away from the first spot; around 11:30 there were approx. 8,500 birds, with an almost white bird (seen before by the previous teams) almost all were resting. The total number increased up to 14,000 at 13:00. It was very impressive to see the birds sky-high (at their highest one couldn't even see them, only their loud call betrayed their whereabouts) falling down like a brick in groups of tens up to hundreds into the rice field. It is not surprising that they have to moult their primaries annually! It was striking to see that the Black-tailed Godwits did not respond to a rather high flying adult Peregrine Falcon, but a male Marsh Harrier caused panic; all the Black-tailed Godwits flew into the air, but landed at exactly the same spot as they had left. Also they did not respond to low over-flying Kestrels. Around 14:00 the Black-tailed Godwits started feeding again, bird by bird, and around 15:30 more than 50% of the birds were feeding. They feed continuously with almost no interactions

with each other, and it looked like each probe was successful. One hour later more and more birds started resting again. We found the satellite tagged female **Y4BBYR** (abdominal profile - orange on breast and head - stripes on belly and flanks - breeding plumage on back: all 1) which was preening vigorously for quite a long time.

Because almost all Black-tailed Godwits were resting we stopped peering at their legs at 17:00. A group of 30 Glossy Ibises were feeding in a ploughed rice field on small 'lobsters' in the company of Lesser Black-backed Gulls and Black-headed Gulls. The Black-headed Gulls were fanatic klepto- parasites. In a group of 85 Black-headed Gulls 83 were fully grown/adult and just two 2cy.

On a ploughed rice field we found ten Ruff, all males, and approximately 30 Common Ringed Plover.

16 February 2017

No clouds during the day, so very sunny 17°C, NE 2-3. Porto Alto, Cardal, SW-corner.

Same site and same time as yesterday and the day before. Around 8:30 more than half the group of Black-tailed Godwits were resting, their peace was suddenly shattered by an overflying female/juvenile Marsh Harrier that wasn't interested in the godwits at all. Luckily for our scanning the Black-tailed Godwits returned to the same spot. There were 5,900 birds at 9:15 rising to 6,900 one hour later, including a partial leucistic bird. Around 10:00 90-95% of the group were resting, so it was a good opportunity for us to visit the Bird Observation and Visitation Space of Evoa. A really amazing example of architecture; the skin of the building reflects the intention of integration with the landscape, using the wood like a natural element, with an expression that refers us to the image of reeds and palisades. It is anticipated that the exposure of the wood to the environment contributes to modifying its natural tone and it will become similar to the color of the surroundings environment. The exhibition gives a nice insight in the migration of birds, and methods of migration research, including colour ringing. The information was in Portuguese and English. On the way back to the SW-corner of Cardal we found several rice fields under water, but unfortunately no Black-tailed Godwits. At 12:30 at the same spot as in the morning, the number of Black-tailed Godwits had increased to 15,000 of which 95% were resting. We had lunch in Samora Correia where we met Dirk Tanger, Jan Veegeling, Jouke Altenburg and Mario Huizinga, all keen and experienced colour ring observers and godwit enthusiasts. With the six of us returning to Cardal, we read a lot of colour ring combinations between 15:00 and 17:30. All together we counted/ estimated 24,500 birds in the SW- corner of Cardal, of which >95% were resting, and we expected that they would stay here during the night. The Shovelers were gone, migrated northward? The three Pied Wagtails we saw seem to be fairly uncommon here.

17 February 2017

Clouds with many sunny periods 19°C (but in the sun a few degrees warmer), NE 1-2. Porto Alto, Cardal, W-part, Rio Almansop, Belmonte.

Against our expectations, the rice fields in the SW corner of Cardal were completely empty at 8:10, as were the wet rice fields in the immediate vicinity. We crossed the entire western part of Cardal, but found only a few flooded rice fields and not a single Black-tailed Godwit! After this we drove to Rio Almansop, east of Samora Correia where we had a good view of the wet rice fields (section F and A). Fortunately all the birds (gulls and Northern Lapwing) flew up as a result of a tractor ploughing, but there were no Black-tailed Godwits. It was the same story at Belmonte; under the bridge where we saw Black-tailed Godwits on the 14th there were none today. There were fourteen Great Egrets, a solitary adult Spoonbill (no rings!) and an Egyptian Mongoose, which would have been introduced to the Iberian peninsula during the Arab occupation to hunt rats. At 13:15 back at the SW corner of Cardal we were happy to see a few thousand Black-tailed Godwits of which 80% were resting and 20% foraging. During the next

one and a half hours flocks of Black-tailed Godwits arrived from near and far. We didn't count them accurately but we estimated the growing number at 10-15,000 just before they all flew off with the majority landing in a rice field nearby. In the rice field in which we were looking we found the reason for the total absence of birds, a 2cy female Peregrine Falcon was feeding on a Black-tailed Godwit (no colour rings!) She spent half an hour on her meal, and then she flew away with a full crop. The Black-tailed Godwits didn't reappear at the scene of the crime but we found them in other rice fields, unfortunately they were in belly- deep water. We found at least three Peregrines in the western part of Cardal, two adults and one 2cy. Along a narrow channel close to the river Tagus we counted 200 Spoonbills of which exactly 100 came close enough to read colour rings; five Dutch, two French and one Danish bird. Around dusk (18:45) they flew away, probably to the breeding island in the river Tagus. At the same time big flocks of a few thousand Glossy Ibises landed in the rice fields, Jacob could read six colour rings originating from the Coto Doñana (Spain).



Jennifer Smart, Graham Appleton and Jose Alves were waiting for incoming Black-tailed Godwits that spend the night in the rice fields, as we saw yesterday around 18:30, but this evening we missed the spectacle. Jose Alves had scanned the total rice field area west of the N10 road, but didn't find any godwit. We returned to Vila Franca de Xira at 18:45.

According to the information we got from the Bird Observation and Visitation Space of Evoa three Pallid Harriers were seen in the area during the day.

18 February 2017

Fully cloudy, short rain shower in the afternoon approx. 16°C, SW 2-3, in the evening 3-4. Cardal and Ponte d'Erva.

At 8:05 at Cardal SW corner we saw approx. 750 Black-tailed Godwits, in two flocks, flying away in NE direction. Were they on their way to The Netherlands? At 8:10 we counted 3,300 birds in the rice fields, the largest portion were feeding. There were also 125 Shovelers and a Tree Frog calling, the first and only one we heard. Near the farm surrounded by nice-scented Eucalypts at least fifty Barn Swallows flew very low above the meadows, rain is in the air! Between 11:45 and 12:30 we visited Ponta d'Erva, but there were no Black-tailed Godwits at all. It started raining, but at most for a quarter of an hour, completely different from what we are used to at home. In front of the rain we saw a group of fifteen raptors 14 Western Marsh Harriers and a single Common Buzzard. The rest of the day remained dry.

After lunch at Casa das Queijadas in Almeirim we returned to the rice fields in SW-Cardal. We didn't conduct any counts as part of the group (1000+) flew away when a Muscovy Duck from the farm landed in the rice field. We did manage a count at 16:15 in a rice field near a road closed by a chained gate (but the management of Companhia das Lezírias was collaborating to lend us the necessary key). West of the entrance of Ponte d'Erva there were 6,800 Black-tailed Godwits and the numbers grew by a few thousand by the time we left (18:10). Strikingly almost all birds were still feeding when we left, in contrast to the previous days when we found them mostly resting. Two satellite tagged birds were observed **B6RBLY** and **Y5RRLB**. The second and third after our first at the 15th. Three birds with a blue flag on position 3 had a data logger on the flag.

19 February 2017

Clouds with clear spells 17°C, NNE 3-4. Ponte d'Erva, Cardal.

At 8:15 large flocks of Black-tailed Godwits landed in the rice fields at the same spot where we observed them yesterday in the late afternoon. Did they sleep in this area, and were they startled by a raptor, or did they come from elsewhere? The first scenario seems most likely we saw the birds here yesterday evening until 18:10 and around 18:30 it is nearly dark. At 8:15 we counted 10,200 birds, of which > 95% were resting/preening. At 9:15 to the west of our location we saw a huge flock of Black-tailed Godwits, certainly a few thousand, of which a part joined 'our' group. At 9:40 we had 13,000 birds in one flock! All the Black-tailed Godwits flew up when a Peregrine Falcon flew over but they landed back in the same rice field. As all the birds were asleep, we went for coffee at 11:15. Otto Plantema, a well-known Dutch bird photographer told us that he hadn't seen any Black-tailed Godwit during the morning in the SW corner of Cardal. We checked it at 12:30 and indeed there were still no birds there.

Between 12:50 and 18:25 we were colour-ring reading at the 'chain road' at Ponte d'Erva. At 14:05 we counted between 15,400 and 15,900 Black-tailed Godwits, of which > 95% was resting and 500-600 birds feeding on spilt rice. Around 15:45 the total number of preening/feeding birds increased markedly but roughly half of the group rested for the rest of the afternoon. Later Black-tailed Godwits in groups of hundreds flew away in an easterly direction but gradually the flock was replenished with birds arriving from the west. Did the birds just make a large reconnaissance flight, and failed to find usable alternative fields, or has there been an influx of new birds? We found three satellite tagged birds; **B1RRBY** (new for us) **Y4BBYR** (seen on the 15th) and **B6RBLY** (seen yesterday). Together we recorded more than a hundred colour ring combinations, including three lime and one green flag with inscription.

Jose Alves' team caught 23 Black-tailed Godwits this night, so now we have the opportunity to see even more colour ring combinations!



20 February 2017

Sunny 18°C, NE 3-4. Alcochete, Salinas do Samouco and Ponta d'Erva, Cardal.

Today we travelled from Alcochete and Salinas do Samouco via N10 and N118 looking for Black-tailed Godwits and to track several satellite tagged Spoonbills. On (almost) every high-voltage pylon along the N118 White Storks had built their nests there were up to eight nests on one pylon! Most of the nests were occupied by one or two standing White Storks (none were displaying), we haven't seen birds breeding, although we may have overlooked them. It seems that there have been several platforms constructed on the pylons to enable White Storks to build their nests under the wires, to avoid electrocution of the birds. Near Alcochete we had nice views of the Rio Tejo (River Tagus). The bird highlights: 730 Avocets, approx. 200 Pintails and 175 Wigeon but only three Black-tailed Godwits. We were allowed to visit the Salinas do Samouco for free, after we promised the warden to send him the life histories of the colour ringed Spoonbills, present at the Salinas. We located a group of 46 resting Spoonbills we could read seven combinations, all adults of Dutch origin, but unfortunately no satellite tagged birds. The 120 Greater Flamingo deserved a little extra attention because of the seven colour ringed birds; Jacob could read them all. We saw a lot of small waders; more than one hundred Dunlin, approx. 50 Common Ringed Plover, 24 Little Stint, 20 Kentish Plover (one colour ringed male, a locally marked local bird), five Grey Plover and several dozen Sanderling, some of them colour ringed in this area. The 75 Black-tailed Godwits, feeding in belly deep water, didn't want to give up their colour ring secrets. This was the only place where we saw Eurasian Magpie, just three birds.



After the return journey to Samora Correia which took much more time and kilometres than necessary, we arrived at 15:30 at the rice fields along the chain road of Ponta d'Erva, but we were all alone there were no Black-tailed Godwits at all. In the SW-corner of Cardal we counted 3,900 Black-tailed Godwits at 15:45 of which 900 birds were feeding, but mostly in deep water so we were unable to see many colour rings. Nevertheless we did read a few colour rings including two well-known satellite tagged birds; **B6RBLY** and **B1RRBY**. The former also seen on the 18th and 19th, the second seen on the 19th. Around 18:15 we counted 6,500- 7,000 Black-tailed Godwits in one rice field, the other rice fields were empty. At 18:30 along the chain road we saw an extra 500 birds, so in total 7,000-7,500 Black-tailed Godwits. Where are the rest?

21 February 2017

Hazy all day 19°C, NE 2-3. Ponta d'Erva, SW-corner Cardal and Benavente, Paul de Trejoito.

On our arrival we saw Black-tailed Godwits but a few minutes later, none. At 7:55 a group of 450 birds took off and disappeared high in to the sky in a long line north. We could follow them until they were completely out of sight they didn't change their direction. Are they on the way to The Netherlands?

A few seconds later the remaining 350 birds flew in easterly direction, after which the rice field was completely empty of Black-tailed Godwit. In the rice fields at the SW side of Cardal a total number of 1,800 Black-tailed Godwits, but a large part of the rice fields were ploughed and almost dry, so unattractive for them. At 9:45 we returned to the chain road where we found 970 sleeping and 60 foraging Black-tailed Godwits, including the **B1RRBY**. We scanned the foraging birds for half an hour. After a necessary coffee break at Casa das Queijadas in Almeirim, we went to Benavente, Paul de Trejoito to search in the rice fields of sector H for

Black-tailed Godwits and a satellite tagged 2cy Spoonbill. We were lucky to get the farmer's permission to visit the area, although we got the strong impression that he didn't understand at all what we were asking for. But who is (almost) silent agrees, isn't it so? None of the rice fields were covered by water, so no Black-tailed Godwits unfortunately but we found at least 223 Spoonbills resting close together. 15 combinations were readable, strikingly all were Dutch and German birds, not a single French and/or Spanish bird. We were very excited when we found 'our' satellite tagged 2 cy Spoonbill, and we started reading the information from the tag as soon as we had our equipment (receiver connected to a laptop) prepared. For unexplained reason all the Spoonbills flew away twice and after the second time we couldn't find our Spoonbills again. Nevertheless we downloaded some data. It was a disappointment to hear afterwards that we had only downloaded one month's information of its stay in the Waddensea near Schiermonnikoog, just before he/she should leave southward. But nothing ventured, nothing gained!



At 17:05 we returned to the chain road of Ponta d'Erva, but the same result as this morning, no Black-tailed Godwits. At 17:10 in the SW-corner of Cabral we found 8,500 birds, of which just 250 birds were feeding, including **B6RBLY**. At 17:45 we left the area.

22 February 2017

Hazy all day, but not so intense as yesterday, 19°C, N 2-3. Ponta d'Erva and Benavente, Paul de Trejoito.

At 7:40 the Black-tailed Godwits in the SW-corner of Cardal were restless and noisy, which we hadn't heard the days before. Zug Unruhe is the term the Germans give this, pre-migratory restlessness. Today we have guided Halbe Hetteema, a journalist from the Leeuwarder Courant and photographer Marcel van Kammen through the rice fields to inform them about the importance of this area for the Black-tailed Godwit as a stepping stone between the wintering grounds in West Africa and their breeding grounds in The Netherlands and Iceland and as a

wintering ground for those that do not winter in Africa. In the evening we had a pleasant, long and very informative dinner session with the six of us, including Jouke Altenburg who works at Vogelbescherming Nederland, and Mario Huizinga the developer of the App BirdRing.

23 February 2017

Fully cloudy, N 3-4. Cardal, Benavente, Paul de Trejoito.

At 7:35 with Halbe en Marcel at Cardal, where we met Mario and Jouke. The Black-tailed Godwits were restless and noisy again and several flocks left high in a northerly direction. The remaining birds, approx. 4,800, soon went to rest and so ring reading was pretty soon unproductive. Along the chain road there were no Black-tailed Godwits and an extensive search through Cardal, including the environment of the very small airport, resulted in just one wet rice field but there were also no birds there. Then we went to the rice fields of Benavente, Paul de Trejoito, to show Halbe and Marcel the beautiful landscape and the birds, including Spoonbills. And indeed, it was very scenic, but no Black-tailed Godwits on the ground, only a group of 130 birds flying over the area several times but unfortunately they didn't land. As a consolation we had at least 255 resting Spoonbills, although several birds, mainly 2cy birds, were feeding in the furrows covered by water. We were wondering what they were looking for and we didn't see the birds swallowing. Unfortunately we could not trace the satellite tagged bird. An impressive sight was a Booted Eagle flying over, the first and only during our trip, the same was true for Squacco Heron and Azure-winged Magpie we saw three in the Cork Oaks. We met some administrators of the estate who were very curious to know what we were doing in the field. They could recognize the Black-tailed Godwit and Spoonbill, but were surprised and very impressed to hear that they know these birds breed in The Netherlands, so far away from Benavente! We were allowed to move freely through the site, and if we had questions they would be happy to answer them. Education is also an important part of our job, to inform the locals and to let them understand the importance of this area for the Black-tailed Godwit and Spoonbill, hopefully to make them aware that protection of this area and the birds is vital for the survival of these birds. Wonder and Recognition! In the afternoon we said goodbye to Halbe and Marcel; they were very satisfied and had collected sufficient material to publish an extensive article in the Leeuwarder Courant. We returned to Cardal where the birds had never been so close as they were today!

We could read more than 100 combinations and engraved flags, including **B1RRBY**. As 'foam on the beer' a Black-tailed Godwit with a Finnish colour ring: **yellow KY**. A male caught at the nest on 21 May 2016 in Kempele (Oulu region, central Finland on the Bay of Bothnian Bay) the most northern breeding population of Black-tailed Godwit in Europe. It was the first observation of this bird. (Surprisingly Gerrit Gerritsen saw this bird again in Vossemeer near Kampen on 15 March!) At 17:35 it was too dark for scanning so we were forced to stop.



*Male KY 21 May 2016 Kempele (Finland) with kind permission of Sami Timonen
Could the KY have wintered the whole period in Portugal, or just arrived from Africa to Iberia?*

24 February 2017

The morning started fully cloudy, then more and more sun and in the afternoon sunny 18°C, N 3-4. Cardal SW-corner and Salinas do Samouco.

At 8:00 in the SW-corner of Cardal we recorded 3,000 Black-tailed Godwits in belly deep water. During our observations at least five groups of 100-150 birds flew away in a northerly direction. B1RRBY was still present. The management of Companhia das Lezírias started draining the water from the last rice fields in this corner, and therefore within a few days all the rice fields wouldn't be suitable for the Black-tailed Godwits anymore. This is excellent timing as it is just in time for the Black-tailed Godwits to leave for their breeding grounds and for the farmers to prepare the fields for next harvest season.

It would really be a disaster for the Black-tailed Godwits if the management decide to start draining the fields a few weeks earlier. In that case the birds will miss the possibility to feed for long enough on the spilt rice to get in good enough condition necessary to accomplish their journey to the breeding grounds successfully!

At 8:45 along the chain road there were no Black-tailed Godwits. We left the area for the last time this year at 9:00. We went to Samouco to deliver the receiver equipment to our Portuguese colleagues, who will try to find tagged Spoonbills and to read the tag information. As well as the 2cy bird there are another six birds with tags in this environment at the moment so it would be nice if they would have more success than we had. In the Salinas we found only 20 Black-tailed Godwits in belly deep water. A flock of 26 resting Spoonbills, six colour ringed, all of Dutch origin. On the way to Vila Franca de Xira on the N118 we discovered several Eurasian Badgers as traffic victims.

It was a real challenge and time consuming to make the car presentable again (indeed the car turned out to be black!). We returned the keys of the apartment to the hotel. The keys for the padlocks to the rice fields of Companhia das Lezírias, we returned to the management. And here we got an interesting comment about the management of rice fields. Hunting is allowed in just a very small part of the area, so the hunter we saw and heard on the 15th seems to be acting within his rights.

The management doesn't inhibit the stay and foraging of the Black-tailed Godwits in any way. The greatest cause of damage to crops is the White Stork, they trample the vegetation and take the ripe grains from ears of rice. The Greater Flamingos is a problem in the beginning of the rice season when the rice sprouts; the birds walk in the water and dig up a lot of young rice plants, which causes serious reductions in the harvest. In addition to these issues during the growing season gulls and ducks are a thorn in the side of the rice growers. There is no hunting of these species but they are kept away by bird scaring equipment and megaphones we were told. The use of fertilizer is very limited, pesticides and herbicides are out of the question.

Around 16:00 to Lisbon Airport, returning the car (black again!) with no problems (quite unexpected) before we arrived at a significantly colder Schiphol Airport around midnight.

Extremadura Team 1: Mo Verhoeven, Jelle Loonstra, 朱冰润 Drew Bingrun, 28-1 to 3-2-2017

Unfortunately no daily report available, but the table below gives an idea of the areas visited and numbers encountered; 115 resightings and 27 colour ring density-samples were recorded.

FldDate	FldTime	Location	Total Group Size
28-1-2017	15:20	Almoharin	874
28-1-2017	15:38	Almoharin	320
28-1-2017	15:59	Almoharin	103
28-1-2017	17:05	Cuadradillo	385
29-1-2017		Cuadradillo	25
29-1-2017	10:38	Hernan Cortes	420
29-1-2017	13:23	Almoharin	313
30-1-2017	10:17	Vivares	53
30-1-2017	12:10	Casar de Miajades	779
30-1-2017	14:03	Hernan Cortes	187
30-1-2017	17:23	Hernan Cortes	357
31-1-2017	9:25	Hernan Cortes	378
1-2-2017	11:06	Hernan Cortes	537
1-2-2017	12:09	Ruecas	245
1-2-2017	12:38	Casar de Miajades	1716
1-2-2017	17:23	Hernan Cortes	1059
2-2-2017		Casar de Miajades	1127
2-2-2017	9:21	Hernan Cortes	668
2-2-2017	9:47	Hernan Cortes	221
2-2-2017	10:46	Vivares	290
2-2-2017	12:11	Casar de Miajades	21
3-2-2017	8:41	Casar de Miajades	1575
3-2-2017	10:04	Ruecas	51
3-2-2017	10:16	Ruecas	527
3-2-2017	14:02	Hernan Cortes	65
3-2-2017	16:45	Hernan Cortes	799
3-2-2017	18:08	Hernan Cortes	669

Extremadura Team 2: Egbert van der Velde and Wiebe Kaspersma, 3-13 February 2017

3 February 2017, Travelling

We left our homes at 7:30 am and arrived at Madrid airport around 3 pm. We traveled to Mérida by bus where Mo and Jelle picked us up and around 23:15 pm we arrived at our residence in Santa Amalia.

4 February 2017, Introduction

15°C, rain, Wind NW 5, ± 70 color combinations each (all projects).

We woke up early (around 6 am) because Jelle, Mo and Drew had to leave at noon. They showed us the hotspots and important roads in the area and told us their Extremadura experience 2017; a lot of information to process for one day. We were able to gather a decent amount of color combinations from Casar de Miajadas (east), Hernan Cortes (west), Vivares and Santa Amalia (east). Around 4 pm we dropped them off at Mérida bus station after which we drove back to Hernan Cortes to check a group we skipped earlier. Because of the regular rains the smaller roads had become pretty slippery and we practically got stuck. At sunset we tried to find the roost which was pointed out to us earlier today, but because of (heavy) rain and low clouds we couldn't spot any sleep-migrating birds and were unable to find it. After a late diner we entered our data and decided to catch up some sleep because we had two exhausting days.

5 February 2017

15°C, sunny with clouds, wind NW 5, ± 70 color combinations.

It rained throughout the night hindering our transportation at certain areas later today. When we arrived at Casar de Miajadas around 9 am the sky had cleared and 620 Godwits awaited us to be observed. West of Hernan Cortes we had a nice group of Godwits (1400) under great circumstances and two other decent groups (total 500) on more or less the same locations as yesterday. After driving around a bit in the direction of Yelbes to explore the area we returned to Santa Amalia to observe a group (2200) on the same fields as yesterdays. Numbers here had increased, but the (narrow) dirt road had become pretty risky. Fortunately we were able to leave without getting stuck or gliding into ditches/rice fields and returned early to the region the roost was supposed to be at to learn the infrastructure. We managed to spot and follow some sleep migrating flocks and found the roost an hour before dusk (7:30 pm = dark) south of Alonso de Ojeda. Group size was estimated around 6.500 Godwits, approximately the same quantity as our colleagues counted the day before our arrival. This meant it was unlikely a significant influx of migrants had taken place and this was confirmed after entering our data (only 5 new RUG combinations). Because we'd seen around 4.750 Godwits throughout the day, it could be worth to check out other suitable locations for the remaining 1.250 Godwits and possible new combinations.

6 February 2017

18°C, sunny, wind W3, ± 50 color combinations.

In the morning we checked the hotspots at Casar de Miajadas, Vivares, Ruecas and Hernan Cortes. Numbers appeared to have decreased everywhere (total 1.000) and because of bad reading conditions (sun angle and distance) we could hardly read any ring combinations. We spent about 5-6 hours driving around and checking wet rice fields, but couldn't find any other Godwits besides the 2k Godwits east of Santa Amalia that were there yesterday too. Because of the hazardous dirt road and bad reading circumstances (light and distance) at Santa Amalia we decided to skip these birds for today. After checking the roost and concluding there were no Godwits there either we got fed up. Because we didn't really know what else to do we returned to the spots at Casar de Miajadas, Vivares and Ruecas for the 2nd time today, but only found 26 unringed Godwits. After that only Hernan Cortes remained, so we went there again hoping those birds had moved to reachable fields

in the meantime. This was the case, but soon after our arrival a peregrine falcon disturbed the area and to our surprise there appeared to be \pm 3,500 Godwits divided over the region. In the last two hours of daylight we were able to triple our number of color combinations. At 6:45 pm sleep migration started and we went to check out the roost which was at the same field as yesterday. There were about the same number of birds today and data entry showed we'd again seen 5 new RUG banded birds, but it didn't really feel like a useful day considering the time spent driving and amount of birds we couldn't check for rings.



7 February 2017

16°C, clouded/rainy morning, sunny moments in the afternoon, Wind W3, ± 75 color combinations.
We spent the morning checking 2.500 Godwits west of Hernan Cortes (same fields as yesterday). The dirt roads at Santa Amalia (east) dried up a bit, so we spent the afternoon there to check another 2.500 Godwits. When sleep migration started we drove to the roost of yesterday, but only saw a small group of Godwits flying over the fields and turning around after which we lost sight of them. We decided to drive back to the hotspots: Santa Amalia was empty but at Hernan Cortes there were still about 1.500 Godwits foraging. When it was almost dark they started migrating as well in the direction of the old roost, but it was too dark to follow them. Data entry told us we'd seen 5 new RUG combinations (again) and that there'd been quite some Godwits switching hotspots in the area between and also within days.

8 February 2017

15°C, sunny Wind W3, ± 50 color combinations.

Today we checked the same Godwits again on more or less the same spots. The group at Hernan Cortes moved 500m to the south to the other side of the road during the morning. At the end of the afternoon we checked Palazuelo, but couldn't find any Godwits. We'd seen 3 new RUG birds. Luckily we found the new roost just before sunset NW of Hernan Cortez and SW of Vivares. We estimated it was the sum of the flocks we'd checked (2.500-3.000), so no new influx unfortunately. Jos and Ruth ran into us coincidentally at the roost site and together we went to check on José Maséro and his team who were trying to catch some Godwits. After they checked the nets for the first time and caught only one Godwit we went back to our house.

9 February 2017

14°C, sunny, Wind W2, ± 50 color combinations.

Because we exhausted the banded Godwits in the area we drove through the steppes between Castuera and Cabeza today. It was good to have a change in scenery and see several different bird species. The lapwings on the steppes appeared to be in pairs and ready to breed. We tried to find nests without success. We couldn't resist spending the end of the afternoon checking the major flocks at Hernan Cortes and Santa Amalia and finally saw transmitter bird "Amalia". We'd seen 4 new RUG birds. Jos and Ruth drove around most of the hotspots of Extremadura and didn't find any other significant flocks either.



10 February 2017

12°C, cloudy with sun, Wind N2, ± 100 color combinations.

Jos and Ruth left in the morning. Ring reading circumstances were great today and we scanned the large flocks at Hernan Cortes and Santa Amalia finding 15 new RUG combinations. The wind turned north during the night and several new birds had already been seen in the Donana region this winter so it was very likely we had a new influx today.

11 February 2017

12°C, cloudy, Wind W4, ± 45 color combinations.

We started late today and couldn't find any large flocks on the recent hotspots at first. The present smaller flocks were moving around a lot and reading circumstances were bad. Because we had the feeling we were missing a lot of birds we drove around the whole area, but didn't see any other

Godwits besides the flocks in Hernan Cortes (north and south of the road) and Santa Amalia. At dusk our suspicion was confirmed at the roost (same field as 8 Feb.) where we counted only ≤ 1500 Godwits. Even though we didn't read many cc's we'd seen 7 new RUG birds.



12 February 2017

12°C, rain, Wind W4, ± 70 color combinations.

It rained heavily throughout the night and during the day. We had bad reading circumstances on most locations, caused by rain and wind from the "wrong" direction. Luckily the birds chose easy to reach places because most roads had turned into mud streams during the night. We scanned approximately 750 Godwits near Santa Amalia and another 750 (several smaller flocks) on the west side of Hernan Cortes; more or less the same numbers as we counted at the roost last night. The daily result was 3 new RUG birds. Halfway noon we started preparing for our departure.

13 February, departure 2017

Our trip back went as planned and we both were relieved to go home. We had a good time, but read way fewer new (not seen by Mo, Jelle and Drew) color combinations as expected. Our hopes were probably a bit too high. Together we read 616 RUG birds (138 different) and 485 other projects (149 different), after all a successful trip.

14 and 15 February 2017, Jose Masero, Univ. of Badajoz:

On 14 and 15 February we were looking for the roosting site, and we found 2 sites near Canal Secundario nº 3. The smaller one had 3,500-4,000 godwits and the bigger of them about 8,500-9,000 birds, but at least 2,000-3,000 Ruffs. During the night they moved to a single roosting site in another place (but within the same area).