

Describing habitat and finding colour rings of Black-tailed Godwits (*Limosa limosa*) in Guinea-Bissau, from 8-19 December 2018

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Introduction

The Black-tailed Godwit (*Limosa limosa*; BTG) is a meadow bird (Verstrael 1987; Thijse 1904). The current Dutch population is estimated at fewer than 40.000 breeding pairs (Kentie et al. 2016) and represents an important part of the total continental BTG population *Limosa limosa limosa*. However, the number of breeding pairs have declined rapidly over the last decades, as compared to the 120.000 pairs in the 1960s (Mulder 1972). This is mainly caused by a change in agricultural land use. Intensification and rationalisation have led to degradation of the breeding habitat, resulting in low reproduction. The population in the Netherlands cannot produce enough chicks for a stable population. (Vickery et al. 2001; Newton 2004; Tscharnke et al. 2005; Teunissen & Soldaat 2006; Roodbergen et al. 2012). After the breeding season godwits migrate to southern Europe (Spain and Portugal) and West-Africa where they stay for wintering (Márquez-Ferrando et al. 2009; Hooijmeijer et al. 2013).

Demographic research Southwest Friesland

To measure the changes in population numbers and the causes, in 2004 the University of Groningen started a long-term research in the south-western part of Friesland, The Netherlands. In 2007 the research area has expanded up to 8400 hectares and since 2012 it increased again with another 1600 hectares (Groen et al. 2012). A colour-marked population of godwits was set up to make them individually recognizable. The knowledge that has been collected with this research has been implemented by policy makers and nature conservation organisations.

Migration and wintering sites Black-tailed Godwit

In 1983-1984 the wintering sites of godwits were explored for the first time. At that moment most godwits were wintering in rice areas along the West-African coast in Senegal, Gambia, Guinea-Bissau and further. Big numbers of godwits also occurred in the inner Niger delta in Mali (Altenburg & van der Kamp 1985), but they probably belonged to the eastern European population. Recently, the wintering behaviour has partly changed with an increasing number of godwits deciding to winter in southern Spain at National Park Doñana. In the 1980s during the first counts, only 4% of the NW-European population used this area as a wintering site but recent estimations suggest a big change with up to 23% of the population wintering in Spain. The most important reason for this is probably the creation of new artificial fishponds and rice fields. It is remarkable that this increase is not driven by climatic changes in the Sahel zone of West-Africa (Márquez-Ferrando et al. 2013). For godwits, staying Iberia can be advantageous because they can skip a 3000 kilometre (v.v.) travel over the Sahara, a potentially dangerous migration route and save their fat stores for the next breeding season.



Figure 1. Two migration routes of satellite tagged birds in 2009. The left map shows the route of an Iberian wintering bird. On the right an African wintering bird. Iberian wintering birds save a 6000 km flight and don't need to cross the Sahara twice (Hooijmeijer et al., 2013; maps Altenburg & Wymenga, Feanwâlden).

Conservation

The change in wintering grounds is remarkable and an important reason why we want to do (demographic) research in West-Africa. We know now that juveniles are more likely to make these kind of shifts than adults (Verhoeven et al., 2017), but not how they develop their individual migration strategy and perhaps thereby change the migration pattern of the species. These changes can also have consequences for the survival rate of both adults and juveniles. Moreover, they can lead to differences in reproductive success, for example due to differences in body condition upon arrival on the breeding grounds. Both are demographic parameters that can rapidly influence population dynamics. A better understanding of these processes is therefore also important from a conservation point of view; the Black-tailed Godwit qualifies since 2006 as “Near Threatened” on the IUCN Red List.

Until now, West-Africa is the only area along the migratory flyway from where we don't receive many observations of colour-marked individuals. Only small numbers of colour-ringed birds have been reported, mainly by birdwatchers and, recently, by local scientists. Unfortunately the numbers of sightings are too small to make demographic comparisons between wintering sites.

Expeditions West-Africa and Iberia

In November 2014 the University of Groningen, in cooperation with Global Flyway Network and financially supported by Birdlife Netherlands, embarked upon their first expedition to the wintering grounds in West-Africa and since then we visited the area 2-3 times per year. We aim to set up a demographic research project in this area in close cooperation with local scientists, volunteers and conservation organisations. The most important goal of the first missions was to get a good overview of the wintering grounds, resighting conditions, local facilities and knowledge and to make a start with setting up a dataset of individually recognizable godwits that winter in West-Africa. Secondly we made a pilot study of habitat choice and prey choice. At this moment comparable research is done in NP Doñana (Spain), Extremadura (Spain) and the Tejo/Sado estuaries near Lisbon (Portugal). The last two are used as stop-over sites in February. Therefore it is mandatory to continue our research at all these locations to find links between wintering sites, stop-over sites and breeding sites. Research questions we want to get into in the future with our work in West-Africa, Spain, Portugal and the Netherlands are:

- What is the overall difference in adult mortality between birds wintering in West-Africa and Iberia? And where along the flyway do these differences occur?
- Can birds change their wintering strategy during their life? And is this age-dependent?
- Does reproductive success determine where birds winter?
- Has the wintering strategy consequences for their migration and breeding phenology? And are there consequences for their reproductive success?

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.

Using remote sensing products (Modis EVI 16 day time series) and 5 years of good quality locations of black-tailed godwits (equipped with PTT satellite tags) we generated a spatially and temporally explicit habitat utilization model using Bayesian distribution analysis. We found that during the non-

breeding period black-tailed godwits show a preference for stable habitats within a relatively low productivity range (EVI value 0.1-0.2), which are associated with open wetlands, low vegetation cover and shallow surface water (Howison et al. *in prep*). However, remote sensing data is difficult to interpret without accurate ground-truthing information. Additionally, godwits spend much of their time foraging either on the mudflats of saline mangrove wetlands or in wet rice fields, however little is known of the nature of the prey items at different times of the year. In this study we aimed to conduct a survey categorizing and describing habitats, measuring environmental variables such as water salinity and soil penetration pressure, feeding efficiency of the godwits and carefully searching the substrate to establish the identity of godwit prey items.

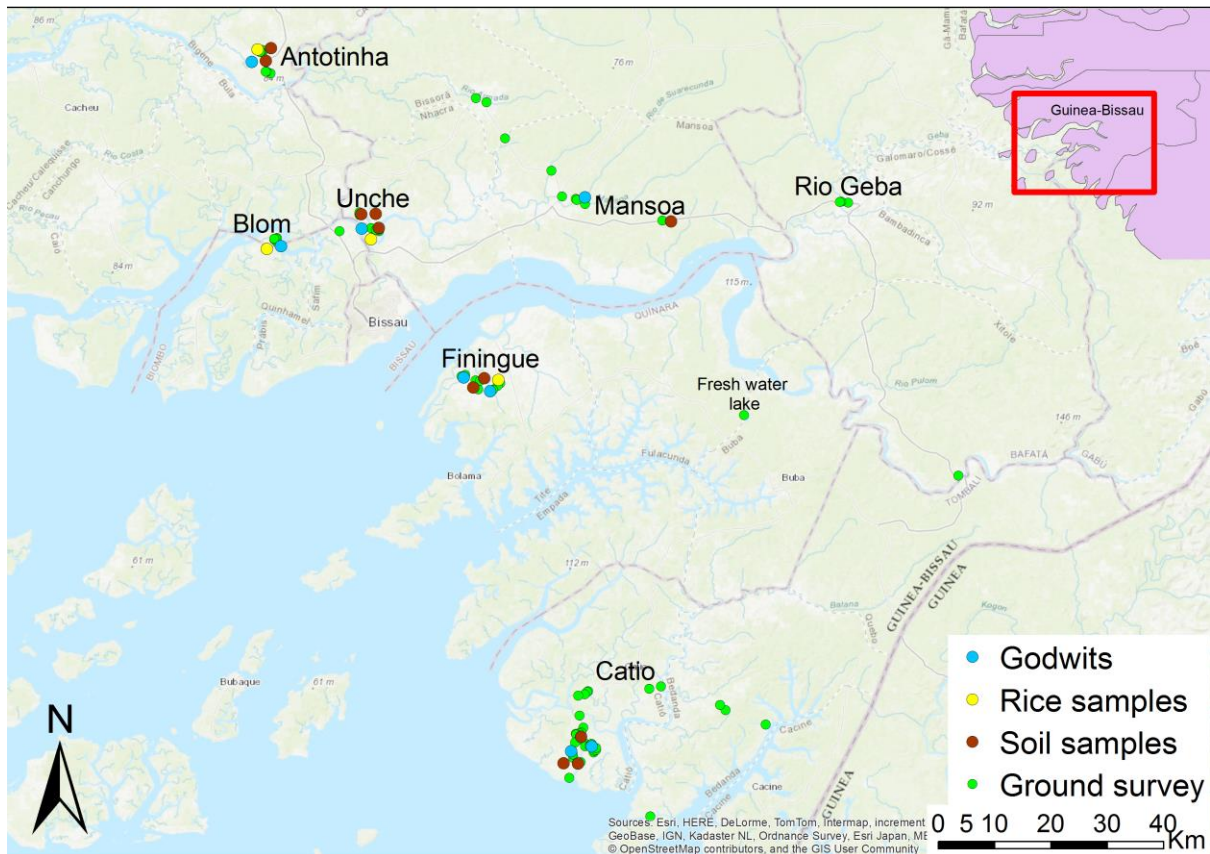
From 8 – 18 December 2018 we visited areas in Guinea-Bissau previously identified as godwit areas as well as new areas that showed up as hotspots from the accumulated transmitter locations – and were accessible either by car or by boat. We recorded resightings of individual birds, counted godwit numbers and described 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.

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Daily reports



Distribution of the locations visited during the expedition 8 - 18 December 2018

8 December 2018

We travelled from the Netherlands through Lisbon to Guinea-Bissau. The NL flight was delayed by 2 hours so by the time we arrived in Lisbon we were almost too late for the connection. The Portuguese airlines had arranged a quick transfer (less than 10 minutes!) for us and we were lucky to make the connection after all. Hamilton Monteiro, technician of the Bureau de Planification Côtière, was at the airport to greet us and take us to the hotel, Pensao Creola. He will be our guide these weeks and we are looking forward to work with him again.

9 December 2018

A warm start of around 25 degrees and 10-20% cloud cover. We first went around to the office of Joaozinho Sa, coordinator of Wetlands International in Guinea Bissau and director of the Bureau de Planification Côtière, and explained the purpose of our trip with the new emphasis on habitat use. He talked us through all the arrangements that had been made, handed over the mission permit and introduced us to the IBAP representative who had provided a 4x4 vehicle. Fortunately Hamilton had already done all the shopping for food and camping equipment. So after changing our €3500 expedition budget for FCFA we were ready to go. We then started the long journey to Catió. Evident along the whole route was the absence of big tropical trees, made even more obvious by the odd endemic tall tree against the skyline dispersed between many Cashew nut trees and patches of mango trees. We arrived at about 16h30 and decided to explore some rice fields near Cufar. The rice area was still quite wet with many wader and waterfowl species present. However, no godwits; we stopped and asked some local people if they had seen any godwits but they said no. We still took some habitat points adding to the growing habitat ground truthing effort. We spent the night in Catio.



Rice fields near Cufar with many waders and waterfowl such as herons and jacana's

10 December 2018

The next morning we did some final shopping before we started the big mangrove adventure in the area south of Catío. The boat for the trip had been provided by the PN de Cantanhez including 2 boatmen that knew the area well. We had to wait for the high tide to depart because there was a difficult passage through the mangroves that was only possible during high tide. It was a close call but we made it through the passage just in time. We arrived in the vast Cachil rice fields north of Catabao. We deliberately chose this area because between 2013 and 2017 many of the godwits with satellite transmitters had been in this area in November and December. We arrived still at high tide at the river branch that led to the rice fields around 12:00. But we soon realised that we would have to wait till midnight before we could leave this place again. This meant that we had the whole afternoon to explore the rice fields. About 40% of the area had not been cultivated, those fields were generally muddy or totally dry, covered in tall grass (looks like thatch grass) or *Juncus* type reeds. The operational rice fields were pretty well maintained and >95% had crops on them that still had to be harvested. There were not so many people in the fields harvesting but that could also be because the harvesting season was only just starting up here. The density of the plants was not that high that it would be impossible for godwits to forage in between. Most of the fields were still wet and quality of the plants seemed to be good. We walked for 5 hours through the fields but only found 10 individuals. These were foraging and resting in a rice field that had been used last year with a lot of open space between the plants. We took some soil samples but apart from 2 rice kernels and 1 *Culex*-type mosquito larva we could not find anything else they might have been foraging on. After the fieldwork we ate fresh fish from the mangroves and waited till 23:00 before we could leave. After going around in circles on the river, a helpful guy on shore came on board to help us locate the estuary branch we needed to reach the village; we spent the night camping on the beach of Catabao Segundo.



Negotiating the narrow (shallow) passage through the mangroves



Around 10 godwits seen foraging in a rice field cultivated more than one season ago in the Cachil rice fields north of Catabao, soil samples were inconclusive with one *Culex*-type mosquito larva and a few rice kernels

11 December 2018

A cloud free day reaching 35°C; we could leave once the tide had come in again around 10h00. We travelled along the estuary to the Catabao rice fields where satellite tagged godwits had been seen in December between 2013 – 2017. It turned out to be a completely abandoned rice complex. There was a breakthrough in the big dike which allowed free tidal fluctuations. The internal dikes and canals were almost completely lacking. Fiddler crabs and tidal waters have restored this area to an almost bare mudflat system, with about 20% vegetation cover of *Sarcocornia sp.* We didn't see any godwits unfortunately but took a soil and salinity (43 mS) sample. Next we went to the rice complex of Com, there was not so much time as the boat had to go back to the home base at Jemberem and we were limited by the tide maximum at midday. Jos and Hamilton managed to sight 35 godwits, including 1 code flagged bird. The birds were foraging in an abandoned rice field in small pools between the vegetation. These pools were full of mosquito larvae and that might very well have been where they were foraging on. The birds were not really probing but merely pecking, suggesting a superficial prey item. In the soil we could not find any potential food items.

Ruth took a soil and salinity sample in a mature rice field, to complete a sample set for the southern part of the Guinea-Bissau expedition. The water salinity was still quite high (18 mS) even though the rice complex was separated from the estuary with a huge clay dike. The northern and western part of the rice field complex was almost completely abandoned. The fields were mainly wet and about 40% of the harvest had been cut; most of the fields seemed to have a pretty good crop yield. We finished our survey in the fields below Catío at noon and travelled back with the boat to the port of the Cantanhez NP just north of Jemberem.



Catabao rice fields were completely abandoned and the fiddler crabs had almost completely restored the area to a natural tidal mudflat



Abandoned field in the rice complex of Com, pools were full of mosquito larvae

12 December 2018

Travelled from Jemberem to Tite; the road was in a bad state and we made slow progress through the beautiful remnants of what was once upper Guinea forest. We had a flat tire and arrived late at the catholic mission post of Tite at 21h00. The priest and his assistant were surprised, but very friendly about our surprise arrival and allowed us to stay in their compound for two nights.

13 December 2018

Another warm and cloud free day, almost without wind, reaching 40°C at midday. We headed out to the rice fields north of Bissassema de Cima, which were mostly abandoned (around 80%). A few active rice fields remain on borders of a natural wetland area and about half of those were harvested; we found a few rice fields where the dikes were restored but many of the rice field complexes are slowly starting to revert to more natural floodplains. Only old dike structures and the odd active rice field remaining in the landscape, which indicate that they were once large rice complexes. The international investment signage indicates that investment in rice development happened around 2009. Many of the abandoned paddies were completely dry; some were a bit muddy and drying out. We targeted for this area because one of the transmitter birds, Madrigalejo, had been located in this area. We found godwits in a wet zone that ran through the entire area, but only 8 individuals. In the afternoon we searched for the rice fields east of the village but almost the entire area was covered with 1,5 m tall thatch grasses (*Hyperhenia sp.*). According to satellite locations from previous years there should have been some wetlands in this area next to the small hamlet of Flora but they had dried out and we became a bit desperate that we would end this day again without any resightings. But on the way back we ran accidentally into a group of about 50 birds next to the main road to Tite near Finingue. These birds were foraging in what seemed to be a failed rice field; conditions were wet but there was only a small zone where the plants had reached maturity. Godwits were sighted at last feeding on rice grains, picking them directly from the ripe seed heads and not so much from the ground. Foraging efficiency ranged from 5-15 rice grains per minute; the low number was caused by godwits becoming vigilant in response to disturbance by people passing by on the road. In between we saw them drink frequently. The fat score of the birds

was around 3. We found the first ringed birds of this trip.....and one of those was a transmitter bird called Madrigalejo. The bird seemed to be doing fine in its 3rd winter since it was tagged. Salinity in the river was relatively low (3.7 mS) compared to the estuaries (37 – 44 mS) earlier this week. The rice fields separated from the river by dikes were much higher in salinity compared to the river, probably due to evaporation (ranging from 6 – 11 mS). Soil samples were taken in a semi-natural wetland and in an active rice field, and rice grains were collected. We spent the night again at the mission post of Tite, where padre Luis brought us the rings and legs of what was probably an Osprey that was shot by a local hunter back in 2009. Reason: it ate 12 hens and roosters 😊😞



Ladies fishing for crabs in the saline estuary next to the rice fields, and manually threshing the husks from the rice kernels



About 50 birds next to the main road to Tite near Finingue, including the satellite-tagged Madrigalejo. Here the godwits were actively foraging on rice kernels from the standing crop by jumping up to reach the rice, taking regular pauses to drink water

14 December 2018

The weather has changed: instead of sunny and blue skies, we had overcast skies and a very humid atmosphere with temperatures around 35°C.

After saying goodbye to the priest at Tite, we first went back to the spot where we found the godwits yesterday evening near Finingue. And they were there again in exactly the same rice field: 28 birds including Madrigalejo. There was a new colour ringed bird as well. We took some intake rate samples again (17 rice kernels when eating rice from the plants and 4 prey items per minute when eating from the mud). By that time it was already 10:30 and we had to leave for the long journey to Mansoa. Halfway we made a stop at a fresh water lake near Cufada but found no godwits there. Just after Bombadinca we checked rice fields along the Rio Geba near Finete. About 20% had been harvested but in general they were dry and not very suitable for godwits, although we know that sat-tagged godwits have been in this area in 2013; no birds were seen this time. We continued towards Mansoa and stopped to check the rice fields along the river Mansoa just S of the city near the bridge but again we found no birds. On the north side of the road the fields were extremely wet (fresh water 0.5 mS), on the south side they were a bit salty (3.7mS).

Driving along the road crisscrossing the estuarine rivers showed a variety of rice complexes. Some were almost completely abandoned and had reverted to tall grasslands, others were well maintained with hardly any abandoned fields, and some were in between with the majority of the paddies abandoned. But where rice was cultivated the paddies were less well maintained with broken dikes, partly failed crops and bare mud.



A fresh water lake near Cufada

15 December 2018

A cloud free day reaching ~32°C. We headed back to the fields close to Mansoa from yesterday evening to take soil and penetration pressure samples from both sides of the road since one side was very fresh and the other side a little salty – but essentially fed from the same estuarine river. Again we saw no godwits here. We checked another area east of and close to Mansoa called Cussana. It is a big floodplain of the Rio de Olom. Decades ago people tried to enlarge the rice cultivated area, they cut the mangroves but did not maintain the main drainage channels very well. The tidal water channels became obstructed with sediments and turned the area into a freshwater floodplain with open shallow water, grasses and reeds (*Typha*). On the edges, near the villages, there is still some rice cultivation but only a small percentage of the flood plain is used for that. We saw no

godwits here but a young guy claimed he had seen godwits at the opposite side of the floodplain near Cusentchi. He showed us the way but we only saw 3 godwits flying over and searching for a suitable place to land. According to the villagers there had been godwits in the area in November but not now anymore. The area had apparently become too dry now. In November 2014 we found hundreds of godwits in this area as well, when the circumstances were indeed much wetter. Water conditions were very fresh 0.14 – 0.65 mS and the black cotton soils were still quite wet which makes this area very productive. The village allows their ~35 cattle to graze and drink.



Big floodplain of the Rio de Olom

We returned to Mansoa to do some shopping and afterwards moved on to our next destination: Pache lala. Before we arrived there we checked some smaller rice fields before and behind Bissora without seeing any godwits. In the afternoon we checked the rice fields of Pache lala. Every time we visited them previously, god numbers of godwits were almost guaranteed. But this time we did not see a single individual! The maintenance of the rice fields did not look that different from previous years: the dikes were still in good condition, but the fields were much drier and even more important: about half of them had not been used this year! We searched a large part of the area and followed some harriers to see if they flushed godwits but without luck. According to our local guide Julio, lack of labour force was the main reason why so many fields were not used this year. We noticed that fields that were cultivated 1 or 2 seasons ago still had standing rice stubble. Even harvested rice was stacked on the paddy wall, but had not been carried back to the village. We could see that these stacks were older than the current season's rice because they were dark brown and completely dried out, compared to this years rice harvest which was yellow in colour with large rice grains. We suspected they had received some kind of food aid, which completely removed the need to finish the hard work of the harvest – we asked the opinion of the guide but he was not sure what we were asking.

Meeting with village chief

We returned to the village, after dinner we discussed the situation of the abandoned rice fields with the village chief. He said that the young people are going to school nowadays in Bissau; after they finish school they try to find work in the city. They generally don't return home to become rice farmers. However, an additional change to the culture is that the jobs that the young people manage

to find in the city, don't earn enough money to send back to their aging parents and younger siblings back at the village.

Additionally, FAO provided money and food aid, in lieu of working the land, in the recent years for the people of these villages to repair the outer dike. We observed that the outer dike was indeed not repaired, but that much of the rice complex was left standing and uncultivated. What we suspect happened is that the village accepted the money and food aid, but did not have sufficient labour force to repair the outer dike.

The poor condition of the outer dike has allowed tidal estuarine water to enter the rice complex which will further reduce the capacity to cultivate rice, indeed the salinity measures of the paddies with standing water was quite high (ranging from 22.3 mS to 11.4 mS). Will Pache lala soon become the next rice field complex that slowly turns into a flood plain as we have seen at so many places during this trip? We spent the night at the house of a Balanta family in Pache lala.



Many abandoned rice fields in Pache lala

16 December 2018

Sunny with temperatures above 30°C but with a nice breeze this time. We left Pache lala early in the morning and travelled to the nearby village of Unche. These rice fields were still a good example of well-maintained rice fields, probably the best we have ever encountered in Guinea Bissau. The outer dikes are strong and there are no weak spots in the internal infrastructure. The water levels are good, almost none of the fields have been abandoned and on the west side there is even some reclamation of fields that were about to be taken over by the mangroves. Harvest was almost completed with less than 5% standing crop; women were bringing the rice from the dikes in the fields to the village.

We found about 80 godwits in small groups. That is much less than expected because in a previous expedition in 2015 at this time of the year, we saw 1250 birds at this site. According to the local farmers, they were much more numerous in November, when they started the rice harvest. Most of them were foraging in the fields and on the dikes where they picked up the spilled grains. Intake rates ran up to 27 grains/ minute but they spent a lot of time checking the surroundings. Children were sent out to prevent them from taking the rice from the bundles that were waiting for transport on the dikes. At noon we found some 40 individuals in the wetland in the east of the rice fields. The birds were mainly preening and resting. One of the birds we saw, had also been observed by us in the Casamance this year and other birds were seen in this region during previous expeditions. Most birds were in excellent condition for migration with scores around 4.

The design of the outer dike is different in this rice complex because they have built a system with 2 dikes. A large outer dike and an inner buffer dike with a channel of water in between. Salinity levels were pretty high ranging from 49 mS within the barrier dike decreasing to 18 mS within the inundated rice paddies. We took soil samples both in a functioning rice field and in an abandoned uncultivated field.

Later in the afternoon we returned to find more ringed birds. Half of the birds had left and we only found 1 new colour ring, adding up to a day record number for this expedition of 6.

Meeting with village chief

In the evening we discussed with the chief why this rice complex is doing so much better than the others. He explained that the soil is darker here than I Pache lala and that the rice paddies are deeper, which might mean that the water stays in the paddies for longer. Our observation – yes there is a double dike system surrounding the rice complex, which helps with good water management. The paddy wall height was relatively comparable with what we encountered yesterday. We also observed that the dikes were very well maintained in Unche. However, other than with soil nutrient analysis, we didn't see any visible difference in the colour or texture of the soil.

They don't have trouble with the younger generation leaving the homestead to seek work in Bissau, only some families don't have a son who can help with properly maintaining their fields. Some fields are in slightly worse state than others. We did notice many more people working in the rice complex here today than in the Pache lala yesterday. Many women were carrying the harvested rice back to the village in multiple trips.

The chief also said there is no food aid program being received; this may be a more plausible explanation as to why the rice complex is fully functioning. The people here have to work their fields well to yield sufficient rice to feed themselves.



Godwits foraging on rice grains from the stacked bundles laid out on the dikes to dry



Double dike water management in Unche

17 December 2018

Another $>30^{\circ}\text{C}$ warm day with clear skies and a gentle breeze.

We woke up in Unche after a cold night with a lot of inter-village dog communication (...). We had to replace a flat tyre but after that we were ready to go for the Antotinha floodplains and rice fields.

We made a stop in Bula to repair the tyre, have breakfast and buy some of the famous Bula Mission Post honey. We arrived at 10:00 at the Ponte de Sao Vicente. After this bridge the floodplains and mangroves start until the village of Antotinha and further downstream. This is one of the core areas for godwits in Guinea Bissau but the options to see them are limited. We checked the mudflats next to the road but only found 25 birds; the water here was hypersaline 52 mS. We continued towards the village and found 115 birds in harvested rice fields (water levels ranged from 8 mS near the village to 30 mS near the estuary). They were foraging on bundles of harvested rice that were lying in the water. According to the villagers, it is better to put the bundles in the water because that will make the husks of the rice grains come off more easily. Also only about half the rice paddies were actively used for rice. On the west side the people said it was too salty and there was not enough fresh water to sustain rice cultivation. On the east side there was a natural upwelling of ground water which created a natural S shaped creek that flowed through the centre of the fields and probably helped to keep the salt levels lower.

The birds were very skittish and after disturbance they flew back to the daytime roost where it was possible to see the legs. We found 1 ringed bird from our scheme, an unreadable codeflag and a German bird. Fat scores were around 4 (on a 1-5 scale).

We left the area to turn south and made a stop after the Ponte de Sao Vicente at the Cumano rice fields. They were in better condition than expected. About 30% was abandoned and of the remaining 70% about 70% had been harvested; we found no godwits here. We moved on to Blom where we camped.



Godwits found foraging on bundles of rice left lying in the water to reduce the effort to remove the husks. Alternatively they were roosting in an abandoned paddy in the western corner where fewer people go



View of the mudflats adjacent to the rice complex of Antotinha, where many satellite tagged locations are recorded

18 December 2018

A hot clear day reaching $\sim 35^{\circ}\text{C}$. We got up nice and early to take advantage of the few hours remaining.

It was, however a fantastic day for godwits!! At last we encountered a huge flock estimated 1750 individuals, even though we could not check more than 50% of the Blom rice fields. It was a real pity that this was our last day of which we only had the morning to read colour rings; nonetheless we scored 21 colour ring combinations (3 code flags!), 20 from our scheme and 1 from the German scheme. Two birds were seen in Senegal in November 2018, showing that even when the majority of the birds moves north, southward migration still occurs. The godwits were in great condition with an average fat score of 3.8 ($n=50$), fully fuelled for the return flights to Europe. It seems that the godwits arrive in the rice fields at first light to forage. When the villagers come to work in the fields, they move around a lot and most of them will look for a more quiet place to avoid contact with people. That is normally a group of failed or abandoned fields with some water.

The eastern rice fields of Blom were only about 30% with active rice cultivation of which most had been harvested. The rice crops were not very good with often large bare patches between the rice tussocks. The salinity in the standing water ranged from 11 mS in the poorly performing rice paddies to 47 mS in paddies without rice (just bare mud or a few tussocks of *Juncus* growing). Many paddies were overtaken with grass but towards the mangroves the fields seemed to be of better quality.

Godwits were found foraging on the piles of harvested rice that were stacked on the paddy walls, as well as plucking seeds from the standing crop, we took a sample of the rice grains. In one of the failed crops they were foraging by probing in the mud with an intake of up to 48 prey items per minute. We searched the mud for what they could be eating but found nothing!! They were probing into the base of dead lilies. We thoroughly checked and sieved out 3 of these dead lily bases but could not find any invertebrates. We searched both the top layers of mud as well as the surface mud – nothing! Though in the surface mud there were thousands of *Daphnia sp.* swimming around. We extracted one of the lily bases from the paddy and placed it in the hot sun and observed if anything emerged – still nothing, it remains a mystery what the godwits were feeding on in the mud here ☹.



At last our first really big flock of godwits! Pity it was the last day and we only had limited time with them, nonetheless a great ring reading result!



Godwits foraging in the mud focussing at the base of old dead lilies and rice tussocks, we searched this mud thoroughly to find the prey items but were unsuccessful in finding what they could be eating?

Summary

It has been a fantastic expedition with regards to understanding more about the habitat that godwits use while they are in Guinea-Bissau. We travelled a full transect from the south to the north between Rio Cacine and Rio Cacheu visiting both historically monitored sites as well as exploring a few new possibilities indicated by dense visitation frequency by satellite tagged godwits.

It was less good in terms of ring reading as we encountered only a few small flocks of godwits and 1 substantial group in Blom (1750) on the last morning. In total we recorded 33 sightings of 31 different individuals, all but 2 of our own scheme. Only sat-tagged bird Madrigalejo was seen on 2 occasions and another had moved from Unche to Blom. Some birds had been recorded on earlier expeditions in Africa but we also saw a fair amount of “new” birds that apparently cross the Sahara. It was remarkable to encounter 2 birds that were seen in Senegal in late November and still migrated south. Many people told us that we were too late and that there had been many godwits in November. Some explained the low number also by the drought; however, we still saw a lot of sites where godwits could have foraged. That, in combination with average fat scores of 3.8 (n=50; on a 1-5 scale), did not give us the impression that godwits were having a bad time in Guinea Bissau. Perhaps we had just bad luck not to encounter more or larger groups; the last day at Blom showed that you can run into them if you are at the right place at the right time but you can also easily miss them. Mid December is off course a tricky period because it is about the time that many birds have already started to migrate north. An earlier expedition to Guinea Bissau in 2009 was not very productive either, ring-reading wise.

Nonetheless, we learned a great deal about different rice cultivation strategies as well as godwit foraging ecology. Many of the areas we visited, which were converted tidal floodplains for rice agriculture, have now become abandoned. Generally a few active rice paddies remained which look a lot like subsistence farming as they were within close vicinity to the village. In the shops you will hardly find local rice but mainly imported Asian rice. The reasons for abandonment ranged from the usual; young people prefer to move to the city to find work and education rather than farm rice and don't earn enough in the city to help support their families in the rural villages, or that there was not enough fresh water to support rice agriculture this year.

We found out from talking with the chiefs of different villages that perhaps USDA food aid and international subsidies may have something to do with recently uncultivated fields. A small rural family which receives such a large food aid supplement and subsidy would probably not like to spend all their time working hard in the rice fields and maintaining the outer dikes but rather take advantage of the extra staple food and spend time doing other things like fishing in the estuary, as well as use the money to send their children to the city for work or education opportunities. It was interesting that in the village where the chief said they did not receive any food aid that the rice complex was very well maintained and there were enough people to help with the farming. In 2016 we visited comparable rice complexes in the Casamance, one observable difference with the rice complexes in Guinea-Bissau is the amount of water still in the fields. Casamance rice fields were bone dry and the floor of the paddies had baked hard as concrete which was apparently unattractive to godwits. In Guinea-Bissau on the other hand there were large tracts of dry areas, but in almost all areas there were open wet patches remaining which, as far as we could see, were suitable for godwits.

Indeed we found godwits foraging on rice in the rice complexes. The salinity of the rice complexes ranged from 3.7 to 47 mS, except for one large floodplain of the Rio de Olom near Cussana east of Mansoa which was very fresh water 0.14 – 0.65 mS. Therefore godwits can cope with quite saline conditions, since we observed them foraging on rice kernels then stopping to drink water; this is probably a necessary activity as the dry rice kernels need to become hydrated for digestion. Penetrability of the soil was really high in the flooded fields while on the dikes and dry fields were really low, which explains the absence of godwits probing along the dikes or in the dry rice fields, meaning that godwits don't forage for spilled rice in the fields under these conditions. They forage directly from the full seed heads in standing crops, from rice bundles that were stacked on the dikes drying out and ready for collection, on remaining seeds that were left behind when the bundles had

been collected or, and that was new to us, on bundles that were left in the water to make the husks come off more easily.

We can rule out that mature standing rice or harvested rice is absolutely essential for godwits to spend the northern summer and autumn in these areas. There were equally large areas that had been abandoned (ranging from 1 to many years ago) under a shallow layer of water that look more like a restored natural flood plain than the rice fields themselves. And godwits do make use of these areas as well and are not just restricted to the optimally managed rice fields. Therefore we assume there is still plenty of habitat for godwits in Guinea Bissau, simply because they seem to be so flexible in their diet. The diversity of prey items we have determined, increases after every field trip to West Africa. But it could be that the ample availability of mature rice during a long period from early November to late December helps them a lot to easily gain fat reserves for their long trip north.

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Impressions along the way!

Overview Black-tailed Godwit Resightings

Observer: Jos Hooijmeijer



Colourcode: **1L711B**

Name Ringer: Egbert van der Velde

Name 2nd Ringer:

Ringnr: 1L711B Ringing Date: 6-5-2018

Ringing site: Gaastmeer, De Lange Hoek

The Netherlands 52.95000 N 5.53333 E

Age (in days; 50 = juv.; 99 = ad.): 1

Resightings of this bird:

Date	Site	Observer(s)
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18-12-2018	Blom	11.99556 N -15.79361 W Guinea Bissau
		Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: **1LJANB**

Name Ringer: Egbert van der Velde

Name 2nd Ringer: Haije Valkema

Ringnr: 1LJANB Ringing Date: 12-5-2014

Ringing site: Gaastmeer, De Lange Hoek

Age (in days; 50 = juv.; 99 = ad.): 1

The Netherlands 52.95000 N 5.53333 E

Resightings of this bird:

Date	Site			Observer(s)
7-7-2014	Harich, Trophorne	52.93889 N 5.57222 E	The Netherlands	Jos Hooijmeijer
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: 1LMVUB**Name Ringer:** Ysbrand Galama**Name 2nd Ringer:****Ringnr:** 1LMVUB **Ringng Date:** 9-5-2014**Ringng site:** It Heidenskip, Polder Aent Lieuwes**Age (in days; 50 = juv.; 99 = ad.):** 1

The Netherlands 52.93333 N 5.48361 E

Resightings of this bird:

Date	Site			Observer(s)
24-6-2014	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Rene Faber (RUG)
30-6-2014	Warns, Grote Warnser- en Zuiderpolder	52.86528 N 5.43194 E	The Netherlands	Rene Faber (RUG)
4-7-2014	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Mo Verhoeven
24-2-2016	Samorra Correia, Belmonte ricefields	38.91667 N -8.83333 W	Portugal	Egbert van der Velde
24-2-2016	Samorra Correia, Belmonte ricefields	38.91667 N -8.83333 W	Portugal	Haije Valkema
11-4-2016	It Heidenskip, Feandyk	52.94250 N 5.49972 E	The Netherlands	Ysbrand Galama
26-4-2016	It Heidenskip, Feandyk	52.94250 N 5.49972 E	The Netherlands	Ysbrand Galama
15-3-2017	It Heidenskip, Feandyk	52.94250 N 5.49972 E	The Netherlands	Ysbrand Galama
5-4-2018	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Wiebe Kaspersma
8-6-2018	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama Riemer Miedema
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: B1YLYR**Name Ringer:** Gjerryt Hoekstra**Name 2nd Ringer:****Ringnr:** 2510212 **Ringng Date:** 18-5-2015**Ringng site:** Workum, Workumerbinnenwaard-Noord**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.99611 N 5.41139 E

Resightings of this bird:

Date	Site				Observer(s)
25-1-2016	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain		Jos Hooijmeijer
25-1-2016	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain		Haije Valkema
28-1-2016	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain		Jos Hooijmeijer
10-3-2016	Moëze, Réserve Naturel de Moëze-Oléron	45.88583 N -1.08167 W	France		Pierre Rousseau
31-3-2016	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands		Gjerryt Hoekstra
11-6-2016	Exmorra, Polder Bruindeer	53.05083 N 5.45611 E	The Netherlands		Guillaume Senterre
5-2-2017	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain		Rocío Marquez Ferrando
10-2-2017	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain		Alberto Pastoriza
10-2-2017	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain		Alberto Pastoriza
12-4-2017	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands		Alice McBride Jelle Loonstra
5-6-2017	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands		Alice McBride Gjerryt Hoekstra
17-6-2017	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands		Alice McBride Mo Verhoeven
26-6-2017	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands		Mo Verhoeven Alice McBride

26-6-2017	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Mo Verhoeven
12-3-2018	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Alice McBride
17-3-2018	Gaast, Gaastwad	53.01700 N 5.40600 E	The Netherlands	Jan Kramer Eelco Brandenburg
22-3-2018	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Age Hulder
25-5-2018	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Alice McBride
25-6-2018	Workum, Workumerbinnenwaard-Zuid	52.97917 N 5.41917 E	The Netherlands	Alice McBride Mo Verhoeven
26-6-2018	Workum, Workumermeer	52.99278 N 5.46389 E	The Netherlands	Ysbrand Galama
29-11-2018	Mbissel	14.143 N -16.745 W	Senegal	Jan Kramer Rennie Kramer Idrissa Ndiaye
29-11-2018	Mbissel	14.143 N -16.745 W	Senegal	Jan Kramer Rennie Kramer Idrissa Ndiaye
16-12-2018	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: **B2RYYL**

Name Ringer: Egbert van der Velde

Name 2nd Ringer: Mark Walinga

Ringnr: 2511799 Ringing Date: 4-6-2018

Ringing site: Oudega, De Rige

Age (in days; 50 = juv.; 99 = ad.): 24

The Netherlands 52.99556 N 5.56861 E

Resightings of this bird:

Date	Site			Observer(s)
18-6-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Siebe (RUG) Bonthuis
18-6-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
1-7-2018	Slootdorp	52.84 N 4.97 E	The Netherlands	Wim Tijsen
14-12-2018	Finingue, Finingue ricefields	11.753 N -15.432 W	Guinea Bissau	Jos Hooijmeijer Ruth Howison Hamilton Monteiro

Colourcode: B3LYRB**Name Ringer:** Haije Valkema**Name 2nd Ringer:** Mark Walinga**Ringnr:** 2505439 **Ringling Date:** 15-5-2016**Ringling site:** Oudega, De Rige**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.99556 N 5.56861 E

Resightings of this bird:

Date	Site			Observer(s)
10-6-2016	Oudega, De Rige	52.99556 N 5.56861 E	The Netherlands	Egbert van der Velde
17-6-2016	Oudega, De Rige	52.99556 N 5.56861 E	The Netherlands	Haije Valkema
22-6-2016	Idzegea, Bratte Polder	52.97528 N 5.55056 E	The Netherlands	Haije Valkema
23-6-2016	Gaastmeer, De Lange Hoek	52.95000 N 5.53333 E	The Netherlands	Egbert van der Velde
30-1-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
6-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
10-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
16-2-2017	Porto Alto, Giganta ricefields, Cardal	38.921737 N -8.977164 W	Portugal	Bob Loos
10-3-2017	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
17-3-2017	Koudum, Polder Grote Wester Gersloot-West	52.90056 N 5.43194 E	The Netherlands	Wiebe Kaspersma
2-6-2017	Oudega, De Rige	52.99556 N 5.56861 E	The Netherlands	Egbert van der Velde
13-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Haije Valkema
13-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Egbert van der Velde

18-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Haije Valkema
13-3-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
14-3-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
15-3-2018	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Mo Verhoeven
17-4-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Anneke Zeinstra
12-6-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Siebe (RUG) Bonthuis
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: B3RLRY**Name Ringer:** Ysbrand Galama**Name 2nd Ringer:** Gjerryt Hoekstra**Ringnr:** 2504798 **Ringling Date:** 27-5-2016**Ringling site:** It Heidenskip, Feandyk**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.94250 N 5.49972 E

Resightings of this bird:

Date	Site			Observer(s)
11-6-2016	Workum, Workumer Nieuwland	52.95500 N 5.43194 E	The Netherlands	Ysbrand Galama
11-6-2016	Workum, Workumer Nieuwland	52.95500 N 5.43194 E	The Netherlands	Michael Meijer Iris Bontekoe
19-1-2017	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Rocío Marquez Ferrando
30-1-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
21-3-2017	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Mo Verhoeven
22-3-2017	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Anneke Zeinstra
10-6-2017	Baard, Wammerterpolder	53.16139 N 5.54250 E	The Netherlands	Ysbrand Galama
27-3-2018	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Wiebe Kaspersma
24-4-2018	It Heidenskip, Feandyk	52.94250 N 5.49972 E	The Netherlands	Riemer Miedema
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: B3RYYL**Name Ringer:** Rinkje van der Zee**Name 2nd Ringer:** Hassen Mohamed**Ringnr:** 1433878 **Ringng Date:** 9-5-2009**Ringng site:** Gaast, Polder Gaast-Ferwoude**Age (in days; 50 = juv.; 99 = ad.):** 1

The Netherlands 53.01806 N 5.43194 E

Resightings of this bird:

Date	Site			Observer(s)
21-6-2012	Exmorra, Parregaastermeer	53.03194 N 5.45361 E	The Netherlands	Rienk Jelle Hibma (RUG)
5-4-2013	Workum, Workumermeer	52.99278 N 5.46389 E	The Netherlands	Ysbrand Galama
28-3-2014	Gaast, Polder Gaast-Ferwoude	53.01806 N 5.43194 E	The Netherlands	Rene Faber (RUG)
14-2-2015	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Haije Valkema
15-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
12-5-2015	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Emma Penning
5-2-2016	Porto Alto, Ze do Pinho	38.96222 N -8.89167 W	Portugal	Haije Valkema
6-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
6-2-2016	Porto Alto, Ze do Pinho	38.96222 N -8.89167 W	Portugal	Haije Valkema
31-3-2016	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Ysbrand Galama
3-6-2016	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Mélotie Tort Guillaume Senterre
15-6-2016	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Guillaume Senterre
3-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama

28-3-2017	Piaam, Kooiwaard	53.03111 N 5.40028 E	The Netherlands	Age Hulder Jos Hooijmeijer
18-4-2017	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Age Hulder Wiebe Kaspersma
21-2-2018	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Siebe Bonthuis
21-2-2018	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Siebe Bonthuis
21-2-2018	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Wim Tijsen
23-2-2018	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Siebe Bonthuis
30-3-2018	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Ysbrand Galama Jos Hooijmeijer
11-6-2018	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Tim Oortwijn
11-7-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
16-12-2018	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: B5BLLL**Name Ringer:** Egbert van der Velde**Name 2nd Ringer:****Ringnr:** 2505160 **Ringling Date:** 7-5-2014**Ringling site:** Heeg, De Pine**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.97889 N 5.58306 E

Resightings of this bird:

Date	Site			Observer(s)
15-6-2014	Oudega, De Rige	52.99556 N 5.56861 E	The Netherlands	Egbert van der Velde
16-6-2014	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
17-6-2014	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Haije Valkema
19-6-2014	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
12-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
10-3-2015	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Haije Valkema
16-3-2015	Sneek, Wite en Swarte Brekken	52.596 N 5.403 E	The Netherlands	Haije Valkema
11-4-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Bert Zijlstra
26-4-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Bert Zijlstra
6-6-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Bert Zijlstra
9-6-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Haije Valkema
23-6-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
24-6-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde

25-6-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
25-6-2015	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Haije Valkema
8-2-2016	Porto Alto, Ze do Pinho	38.96222 N -8.89167 W	Portugal	Haije Valkema
11-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Astrid Kant
21-3-2016	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
14-6-2016	Idzegea, It Joo	52.98583 N 5.55500 E	The Netherlands	Haije Valkema
18-1-2017	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Rocío Marquez Ferrando
13-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
16-3-2017	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
6-5-2017	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Bert Zijlstra
12-6-2017	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
10-2-2018	Santa Amalia	39.00389 N -5.98611 W	Spain	Jos Hooijmeijer Libbe Zijlstra
30-3-2018	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Egbert van der Velde
26-5-2018	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Bert Zijlstra
11-6-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
21-6-2018	Harich, Trophorne	52.93889 N 5.57222 E	The Netherlands	Ysbrand Galama Wiebe Kaspersma

30-8-2018	Oussouye, Niambalang mudflats	12.447 N -16.480 W	Senegal	Jos Hooijmeijer Idrissa Ndiaye Ruth Howison
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: B5BLLY**Name Ringer:** Egbert van der Velde**Name 2nd Ringer:** Haije Valkema**Ringnr:** 2505267 **Ringling Date:** 7-5-2014**Ringling site:** Oudega, Tsjerkefeart**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.98667 N 5.54472 E

Resightings of this bird:

Date	Site			Observer(s)
14-6-2014	Idzegea, De Geeuw	52.98417 N 5.56722 E	The Netherlands	Haije Valkema
30-6-2014	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Rene Faber (RUG)
5-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
5-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
8-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
9-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
14-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
15-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
18-2-2015	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Haije Valkema
18-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
25-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
14-3-2015	Idzegea, Bratte Polder	52.97528 N 5.55056 E	The Netherlands	Haije Valkema
14-3-2015	Idzegea, Bratte Polder	52.97528 N 5.55056 E	The Netherlands	Haije Valkema

25-3-2015	Oudega, Tsjerkefeart	52.98667 N 5.54472 E	The Netherlands	Haije Valkema
27-5-2015	Oudega, Tsjerkefeart	52.98667 N 5.54472 E	The Netherlands	Egbert van der Velde
11-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
11-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
24-3-2016	Oudega, Tsjerkefeart	52.98667 N 5.54472 E	The Netherlands	Egbert van der Velde
31-5-2016	Idzegea, It Joo	52.98583 N 5.55500 E	The Netherlands	Anneke Zeinstra
14-6-2016	Sanfirden, Sanfurd Brekkenkant	52.98889 N 5.53111 E	The Netherlands	Egbert van der Velde
16-6-2016	Idzegea, It Joo	52.98583 N 5.55500 E	The Netherlands	Egbert van der Velde
5-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
13-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
13-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijsen
13-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijsen
22-3-2017	Oudega, Tsjerkefeart	52.98667 N 5.54472 E	The Netherlands	Egbert van der Velde
13-6-2017	Sanfirden, Sanfurd Ringwielkant	52.98167 N 5.53500 E	The Netherlands	Egbert van der Velde
16-6-2017	Sanfirden, Sanfurd Ringwielkant	52.98167 N 5.53500 E	The Netherlands	Egbert van der Velde
17-6-2017	Sanfirden, Sanfurdelhoek	52.98611 N 5.51417 E	The Netherlands	Ysbrand Galama Egbert van der Velde Anna Hatsagi

17-6-2017	Sanfirden, Sanfurderhoek	52.98611 N 5.51417 E	The Netherlands	Egbert van der Velde
3-7-2017	Harich, Trophorne	52.93889 N 5.57222 E	The Netherlands	Jos Hooijmeijer
9-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Kees de Jager
9-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Egbert van der Velde
9-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Egbert van der Velde
14-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Haije Valkema
20-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Wim Tijssen
14-3-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
15-3-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
21-5-2018	Heeg, De Pine	52.97889 N 5.58306 E	The Netherlands	Bert Zijlstra
10-6-2018	Workum, Workumermeer	52.99278 N 5.46389 E	The Netherlands	Jan Kramer
12-6-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: **G2GCCC**

Name Ringer: Gerrit Gerritsen

Name 2nd Ringer:

Ringnr: 2515169 Ringing Date: 2-6-2017

Ringing site: Berkum, Tolhuislanden

Age (in days; 50 = juv.; 99 = ad.): 50

The Netherlands 52.55361 N 6.18917 E

Resightings of this bird:

Date	Site			Observer(s)
27-6-2017	Zwolle, Vreugderijkerwaard	52.51833 N 6.02528 E	The Netherlands	Gerrit Gerritsen
8-6-2018	Rouveen, Polder Zuideindigerslag	52.602 N 6.150 E	The Netherlands	Gerrit Gerritsen
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: **G2PCGW**

Name Ringer: Teade de Boer

Name 2nd Ringer: Atser Sybrandy

Ringnr: 2509760

Ringling Date: 25-5-2017

Ringling site: Wommels, Zuidhoeksterpolder, Slachtedyk

The Netherlands 53.09639 N 5.56361 E

Age (in days; 50 = juv.; 99 = ad.): 13

Resightings of this bird:

Date	Site	Observer(s)
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16-12-2018 Unche

12.01028 N -15.61444 W Guinea Bissau

Jos Hooijmeijer
Hamilton Monteiro
Ruth Howison

Colourcode: **G3CWPW**

Name Ringer: Fred Cottaar

Name 2nd Ringer:

Ringnr: 2511951 Ringing Date: 28-4-2018

Ringing site: De Woude, Westwouderpolder

Age (in days; 50 = juv.; 99 = ad.): 99

The Netherlands 52.54639 N 4.76722 E

Resightings of this bird:

Date	Site	Observer(s)
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17-12-2018	Atotinha, rice fields	12.272 N -15.899 W Guinea Bissau
		Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: G5GGWW**Name Ringer:** Astrid Kant**Name 2nd Ringer:****Ringnr:** 2508410**Ringng Date:** 14-5-2015**Ringng site:** Vianen, Polder Vijfheerenlanden Noordwest**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 51.95611 N 5.10583 E

Resightings of this bird:

Date	Site				Observer(s)
6-2-2016	Hernan Cortes	39.03333 N -5.93333 W	Spain		Rosemarie Kentie
14-2-2016	Santa Amalia	39.00389 N -5.98611 W	Spain		Fred Cottaar
14-2-2016	Santa Amalia	39.00389 N -5.98611 W	Spain		Haije Valkema
15-2-2016	Yelbes	38.96944 N -6.00167 W	Spain		Fred Cottaar
15-2-2016	Santa Amalia	39.00389 N -5.98611 W	Spain		Haije Valkema
15-2-2016	Yelbes	38.96944 N -6.00167 W	Spain		Haije Valkema
16-2-2016	Yelbes	38.96944 N -6.00167 W	Spain		Fred Cottaar
16-2-2016	Yelbes	38.96944 N -6.00167 W	Spain		Haije Valkema
9-4-2016	Vianen, Achterkade	51.956 N 5.083 E	The Netherlands		Jouke Altenburg
14-4-2016	Vianen, Polder Vijfheerenlanden Noordwest	51.95611 N 5.10583 E	The Netherlands		Astrid Kant
17-4-2016	Vianen, Achterkade	51.956 N 5.083 E	The Netherlands		Jouke Altenburg
17-4-2016	Vianen, Achterkade	51.956 N 5.083 E	The Netherlands		Mario Huizinga
5-5-2016	Vianen, Achterkade	51.956 N 5.083 E	The Netherlands		Astrid Kant

14-5-2016	Vianen, Achterkade	51.956 N 5.083 E	The Netherlands	Astrid Kant
2-6-2016	Vianen, Achterkade	51.956 N 5.083 E	The Netherlands	Astrid Kant
2-2-2017	Casar de Miajadas	39.13333 N -5.85000 W	Spain	Jelle Loonstra
3-2-2017	Casar de Miajadas	39.13333 N -5.85000 W	Spain	Mo Verhoeven
4-2-2017	Casar de Miajadas	39.13333 N -5.85000 W	Spain	Egbert van der Velde Wiebe Kaspersma
5-2-2017	Hernan Cortes	39.03333 N -5.93333 W	Spain	Wiebe Kaspersma
5-2-2017	Hernan Cortes	39.03333 N -5.93333 W	Spain	Egbert van der Velde
6-2-2017	Casar de Miajadas	39.13333 N -5.85000 W	Spain	Wiebe Kaspersma
6-2-2017	Hernan Cortes	39.03333 N -5.93333 W	Spain	Egbert van der Velde
7-2-2017	Hernan Cortes	39.03333 N -5.93333 W	Spain	Wiebe Kaspersma
7-2-2017	Hernan Cortes	39.03333 N -5.93333 W	Spain	Egbert van der Velde
9-2-2017	Santa Amalia	39.00389 N -5.98611 W	Spain	Egbert van der Velde
9-2-2017	Santa Amalia	39.00389 N -5.98611 W	Spain	Wiebe Kaspersma
18-3-2017	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg
28-3-2017	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg
30-3-2017	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Mario Huizinga

2-4-2017	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg
8-4-2017	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg
10-4-2017	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg
20-4-2017	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg
5-5-2017	Vianen, Polder Vijfheerenlanden Noordwest	51.95611 N 5.10583 E	The Netherlands	Astrid Kant Ronald Messemaker
20-5-2017	Vianen, Polder Vijfheerenlanden Noordwest	51.95611 N 5.10583 E	The Netherlands	Astrid Kant
31-5-2017	Vianen, Polder Vijfheerenlanden Noordwest	51.95611 N 5.10583 E	The Netherlands	Astrid Kant
9-3-2018	Lexmond, Achthoven, Lekuiterswaard	51.96750 N 5.01472 E	The Netherlands	Astrid Kant Ronald Messemaker
20-5-2018	Vianen, Polder Vijfheerenlanden Noordwest	51.95611 N 5.10583 E	The Netherlands	Astrid Kant
28-5-2018	Vianen, Polder Vijfheerenlanden Noordwest	51.95611 N 5.10583 E	The Netherlands	Astrid Kant
28-11-2018	Mbissel	14.143 N -16.745 W	Senegal	Jan Kramer Rennie Kramer Idrissa Ndiaye
29-11-2018	Mbissel	14.143 N -16.745 W	Senegal	Jan Kramer Rennie Kramer Idrissa Ndiaye
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: **G5PWWG**

Name Ringer: Astrid Kant

Name 2nd Ringer:

Ringnr: 2515220 Ringing Date: 27-4-2018

Ringing site: Vianen, Polder Vijfheerenlanden Noordwest

Age (in days; 50 = juv.; 99 = ad.): 99

The Netherlands 51.95611 N 5.10583 E

Resightings of this bird:

Date	Site	Observer(s)
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18-12-2018	Blom	11.99556 N -15.79361 W Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison
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Colourcode: L1RLYL**Name Ringer:** University of Extremadura**Name 2nd Ringer:** Mo Verhoeven**Ringnr:** 4025386 **Ringng Date:** 10-2-2015**Ringng site:** Hernan Cortes**Age (in days; 50 = juv.; 99 = ad.):** 99

Spain 39.03333 N -5.93333 W

Resightings of this bird:

Date	Site			Observer(s)
13-4-2015	Kolhorn, Weerepolder	52.780 N 4.869 E	The Netherlands	Wim Tijssen
2-6-2015	Sint Maartensvlotbrug	52.78333 N 4.71667 E	The Netherlands	Wim Tijssen
16-12-2015	Ilha de Pecixe	11.790 N -16.104 W	Guinea Bissau	Jos Hooijmeijer Haije Valkema Hamilton Monteiro
16-2-2016	Ruecas	39.04528 N -5.87500 W	Spain	Haije Valkema
16-2-2016	Ruecas	39.04528 N -5.87500 W	Spain	Fred Cottaar
30-5-2016	't Zand	52.50111 N 4.74750 E	The Netherlands	Wim Tijssen
4-6-2016	't Zand	52.50111 N 4.74750 E	The Netherlands	Jos Hooijmeijer
30-1-2018	Hernan Cortes	39.03333 N -5.93333 W	Spain	Pipe Abad
7-2-2018	Hernan Cortes - Medellín	39.006 N -5.943 W	Spain	Pipe Abad
7-2-2018	Hernan Cortes - Medellín	39.006 N -5.943 W	Spain	Jos Hooijmeijer Libbe Zijlstra
13-12-2018	Finingue, Finingue ricefields	11.753 N -15.432 W	Guinea Bissau	Jos Hooijmeijer Ruth Howison Hamilton Monteiro
14-12-2018	Finingue, Finingue ricefields	11.753 N -15.432 W	Guinea Bissau	Jos Hooijmeijer Ruth Howison Hamilton Monteiro

Colourcode: L3LLLL**Name Ringer:** University of Groningen**Name 2nd Ringer:** Ysbrand Galama**Ringnr:** 2503053**Ring Date:** 19-3-2014**Ring site:** Workum, Polder de Beveiliging**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.99111 N 5.44694 E

Resightings of this bird:

Date	Site			Observer(s)
22-4-2014	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Rosemarie Kentie
22-11-2014	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Haije Valkema Jan van der Kamp
23-11-2014	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jan van der Kamp Jos Hooijmeijer Haije Valkema
27-11-2014	Pache, Iala	12.035 N -15.641 W	Guinea Bissau	Haije Valkema Jos Hooijmeijer Jan van der Kamp
20-2-2015	Porto Alto, Ze do Pinho	38.96222 N -8.89167 W	Portugal	Haije Valkema
21-2-2015	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Haije Valkema
20-3-2015	It Heidenskip, Heidenschapster Polder	52.95250 N 5.48944 E	The Netherlands	Ysbrand Galama
1-5-2015	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Gjerryt Hoekstra
13-4-2016	Workum, Workumermeer	52.99278 N 5.46389 E	The Netherlands	Sofia Briosa e Scheltinga Atser Sybrandy (RUG)
10-6-2016	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Gjerryt Hoekstra
1-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
10-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
11-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva, East	38.910421 N -8.919625 W	Portugal	Maarten Hotting

12-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijsen
12-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva, East	38.910421 N -8.919625 W	Portugal	Maarten Hotting
16-2-2017	Porto Alto, Giganta ricefields, Cardal	38.921737 N -8.977164 W	Portugal	Jacob de Vries
25-3-2017	Workum, Workumerbuitenwaard-Noord	52.99222 N 5.40167 E	The Netherlands	Alice McBride
3-6-2017	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Alice McBride
14-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Egbert van der Velde
14-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Haije Valkema
21-2-2018	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Wim Tijsen
15-3-2018	Pikesyl, Hisse- en Pikemar	53.00111 N 5.57222 E	The Netherlands	Egbert van der Velde
21-4-2018	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Alice McBride
2-9-2018	Ziguinchor, Colobane ricefields	12.585 N -16.285 W	Senegal	Jos Hooijmeijer Idrissa Ndiaye Ruth Howison
16-12-2018	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: L3RYLY**Name Ringer:** José Alves**Name 2nd Ringer:** Sara Pardal**Ringnr:** J018261**Ringng Date:** 5-12-2015**Ringng site:** Cumano**Age (in days; 50 = juv.; 99 = ad.):** 99

Guinea Bissau

12.00889 N -15.66389 W

Resightings of this bird:

Date	Site			Observer(s)
18-12-2015	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Haije Valkema Hamilton Monteiro
7-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
26-2-2016	Ouderkerk a/d Amstel, Holendrecht en Bullewijkerpolder, Landje van Geijssel	52.28167 N 4.93028 E	The Netherlands	Willem van der Waal
29-2-2016	Ouderkerk a/d Amstel, Holendrecht en Bullewijkerpolder, Landje van Geijssel	52.28167 N 4.93028 E	The Netherlands	Anton Duijnhouwer
3-3-2016	Ouderkerk a/d Amstel, Holendrecht en Bullewijkerpolder, Landje van Geijssel	52.28167 N 4.93028 E	The Netherlands	Anton Duijnhouwer
31-1-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
10-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
11-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
12-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijssen
12-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva, East	38.910421 N -8.919625 W	Portugal	Maarten Hotting
8-3-2017	Ouderkerk a/d Amstel, Holendrecht en Bullewijkerpolder, Landje van Geijssel	52.28167 N 4.93028 E	The Netherlands	Willem Brandhorst
10-3-2017	Hardenberg, uiterwaarden langs de Vecht	52.56667 N 6.61667 E	The Netherlands	Johan Poffers
22-3-2017	Hardenberg, uiterwaarden langs de Vecht	52.56667 N 6.61667 E	The Netherlands	Bert Stegeman

18-12-2018 Blom

11.99556 N -15.79361 W Guinea Bissau

Jos Hooijmeijer
Hamilton Monteiro
Ruth Howison

Colourcode: R2BLRB**Name Ringer:** Rienk Jelle Hibma**Name 2nd Ringer:** Jikke Bergsma**Ringnr:** 2510409 **Ringling Date:** 9-6-2014**Ringling site:** Tzum, Zuiderpolder, Lollumerweg**Age (in days; 50 = juv.; 99 = ad.):** 21

The Netherlands 53.15 N 5.54 E

Resightings of this bird:

Date	Site			Observer(s)
24-7-2015	Tiguët, Station Biologique du PN du Djoudj	16.35000 N -16.26667 W	Senegal	Haije Valkema
25-7-2015	Tiguët, Station Biologique du PN du Djoudj	16.35000 N -16.26667 W	Senegal	Haije Valkema
4-4-2016	Beauvoir-sur-Mer, Les Terres	46.91667 N -2.05000 W	France	Perrine Dulac Clément Justin Thomas Chesnel
8-4-2016	Beauvoir-sur-Mer, Les Terres	46.91667 N -2.05000 W	France	Perrine Dulac Frédéric Signoret
13-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Haije Valkema
21-6-2018	Wommels, Skrok	53.11194 N 5.60167 E	The Netherlands	Jan Kramer
2-7-2018	Workum, Workumermeer	52.99278 N 5.46389 E	The Netherlands	Ysbrand Galama
13-12-2018	Finingue, Finingue ricefields	11.753 N -15.432 W	Guinea Bissau	Jos Hooijmeijer Ruth Howison Hamilton Monteiro

Colourcode: **R3BRYL**

Name Ringer: Astrid Kant

Name 2nd Ringer:

Ringnr: 2508385 Ringing Date: 6-6-2014

Ringing site: Vianen, Polder Vijfheerenlanden Noordwest

Age (in days; 50 = juv.; 99 = ad.): 23

The Netherlands 51.95611 N 5.10583 E

Resightings of this bird:

Date	Site			Observer(s)
4-7-2014	Haastrecht, Hooge Boezem, Doove Gat	51.9916 N 4.7898 E	The Netherlands	Maurice Kruk
10-3-2017	Vianen, Polder Vijfheerenlanden Noordwest	51.95611 N 5.10583 E	The Netherlands	Astrid Kant Ronald Messemaker
24-2-2018	Carrasqueira	38.40222 N -8.76028 W	Portugal	Siebe Bonthuis
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: R3RYBB**Name Ringer:** Astrid Kant**Name 2nd Ringer:** Ronald Messemaker**Ringnr:** 2508361**Ringng Date:** 19-5-2014**Ringng site:** Vianen, Polder Vijfheerenlanden Noordwest**Age (in days; 50 = juv.; 99 = ad.):** 12

The Netherlands 51.95611 N 5.10583 E

Resightings of this bird:

Date	Site			Observer(s)
9-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
29-5-2015	Kedichem, Polder Vijfheerenlanden West	51.89278 N 5.03278 E	The Netherlands	Astrid Kant Ronald Messemaker
13-6-2015	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Dirk Kuiken
30-6-2015	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Haije Valkema
30-6-2015	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Jelle Loonstra
12-12-2015	Unche	12.01028 N -15.61444 W	Guinea Bissau	Haije Valkema Jos Hooijmeijer Hamilton Monteiro
4-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijsen
4-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
10-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Astrid Kant
10-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Astrid Kant
10-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
10-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Astrid Kant
13-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama

13-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
30-1-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
6-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
19-3-2017	Kedichem, Polder Vijfheerenlanden West	51.89278 N 5.03278 E	The Netherlands	Astrid Kant
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: **R4LLBL**

Name Ringer: Maarten Hotting

Name 2nd Ringer: Wim Tijsen

Ringnr: 2503377 Ringing Date: 7-6-2013

Ringing site: Hobrede, Polder Zeevang

Age (in days; 50 = juv.; 99 = ad.): 20

The Netherlands 52.54972 N 4.97778 E

Resightings of this bird:

Date	Site			Observer(s)
16-7-2013	Hilversum, Bovenmeent	52.27722 N 5.11444 E	The Netherlands	Rene Faber
23-7-2018	Tiguët, Station Biologique du PN du Djoudj	16.35000 N -16.26667 W	Senegal	Idrissa Ndiaye
9-8-2018	Tiguët, Station Biologique du PN du Djoudj	16.35000 N -16.26667 W	Senegal	Idrissa Ndiaye
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: R5BBBB**Name Ringer:** Astrid Kant**Name 2nd Ringer:** Ronald Messemaker**Ringnr:** 2502610**Ringng Date:** 31-5-2013**Ringng site:** Leerdam, Polder Vijfheerenlanden Zuidoost**Age (in days; 50 = juv.; 99 = ad.):** 13

The Netherlands 51.91167 N 5.10694 E

Resightings of this bird:

Date	Site			Observer(s)
19-12-2013	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Jos Hooijmeijer
6-2-2014	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Jos Hooijmeijer Tom Jager
19-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Rienk Jelle Hibma
9-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
9-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
12-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
12-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
15-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
6-3-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg Mario Huizinga
7-3-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Mario Huizinga
7-3-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Jouke Altenburg Mario Huizinga
8-3-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Mario Huizinga
9-3-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Mario Huizinga Jouke Altenburg

30-5-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Mario Huizinga
1-6-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Mario Huizinga
3-6-2015	Everdingen, Lek forelands	51.96639 N 5.16778 E	The Netherlands	Mario Huizinga
30-1-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
31-1-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
13-3-2017	Lexmond, Achthoven, Lekuiterswaard	51.96750 N 5.01472 E	The Netherlands	Mario Huizinga
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: R6BBBR**Name Ringer:** Jan F de Jong**Name 2nd Ringer:****Ringnr:** 3558448 **Ringling Date:** 26-5-2010**Ringling site:** Buren, Grie**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 53.44639 N 5.82000 E

Resightings of this bird:

Date	Site			Observer(s)
26-5-2010	Buren, Leyesloot	53.44194 N 5.80917 E	The Netherlands	Tom Voortman
11-6-2010	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
13-6-2010	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
10-7-2010	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
20-2-2011	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Stef Waasdorp
11-4-2011	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
13-4-2011	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
23-5-2011	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
24-5-2011	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
19-6-2011	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
19-2-2012	Porto Alto, Ze do Pinho	38.96222 N -8.89167 W	Portugal	Rene Faber
24-2-2012	Porto Alto, Toneca	38.95361 N -8.93639 W	Portugal	Dirk Tanger
8-4-2012	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman

10-4-2012	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	H.A.J. Wolters
10-4-2012	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
25-5-2012	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
29-5-2012	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
12-2-2013	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
13-2-2013	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
13-2-2013	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
8-4-2013	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
10-4-2013	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
24-4-2013	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
25-4-2013	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
26-4-2013	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
4-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting Wim Tijssen
5-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijssen
8-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijssen
10-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde

13-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
19-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Rienk Jelle Hibma
21-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Hendriekus Algra
27-3-2014	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
22-5-2014	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
24-5-2014	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
28-5-2014	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
31-5-2014	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
6-6-2014	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
14-7-2014	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
21-11-2014	Pache, Iala	12.035 N -15.641 W	Guinea Bissau	Jos Hooijmeijer Haije Valkema Jan van der Kamp
21-11-2014	Pache, Iala	12.035 N -15.641 W	Guinea Bissau	Haije Valkema Jos Hooijmeijer Jan van der Kamp
9-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
9-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
11-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde
16-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde

5-4-2015	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
7-12-2015	Unche	12.01028 N -15.61444 W	Guinea Bissau	José Alves
11-12-2015	Pache, lala	12.035 N -15.641 W	Guinea Bissau	Haije Valkema Jos Hooijmeijer Hamilton Monteiro
12-12-2015	Unche	12.01028 N -15.61444 W	Guinea Bissau	Haije Valkema Jos Hooijmeijer Hamilton Monteiro
18-12-2015	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro
14-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
30-4-2016	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
30-5-2016	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
4-6-2016	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
2-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
2-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
4-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Jos Hooijmeijer
4-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
4-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
6-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
6-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijssen

22-4-2017	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Astrid Kant Ronald Messemaker
20-5-2017	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
13-6-2017	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
15-6-2017	Buren, Kooiplaats, Ameland	53.44944 N 5.83028 E	The Netherlands	Tom Voortman
8-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Maarten Hotting
14-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Egbert van der Velde
17-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Egbert van der Velde
25-3-2018	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
11-4-2018	Buren, Grie	53.44639 N 5.82000 E	The Netherlands	Jan F de Jong
16-12-2018	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: Y2LBBL**Name Ringer:** Ysbrand Galama**Name 2nd Ringer:** Rinkje van der Zee**Ringnr:** 3619178 **Ringling Date:** 2-5-2008**Ringling site:** It Heidenskip, Polder Aent Lieuwes**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.93333 N 5.48361 E

Resightings of this bird:

Date	Site			Observer(s)
10-6-2008	Workum, Workumerbinnenwaard-Zuid	52.97917 N 5.41917 E	The Netherlands	Pedro Lourenço
11-2-2009	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Pedro Lourenço
18-3-2009	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
27-5-2009	Koudum, Polder De Oosterling	52.93444 N 5.45778 E	The Netherlands	Ysbrand Galama Lucie Schmaltz
22-12-2009	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Jan van der Kamp Hamilton Monteiro
21-2-2010	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Job ten Horn
22-2-2010	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Job ten Horn
26-2-2010	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Job ten Horn
19-3-2010	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Anneke Rippen
31-3-2010	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Carola Poley
1-4-2010	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Carola Poley
7-4-2010	Koudum, Polder De Samenvoeging	52.91000 N 5.46139 E	The Netherlands	Carola Poley
7-4-2010	Koudum, Polder De Samenvoeging	52.91000 N 5.46139 E	The Netherlands	Carola Poley

10-6-2010	Hindeloopen, Grote Wiskepolder	52.93694 N 5.43194 E	The Netherlands	Anneke Rippen
18-2-2011	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Job ten Horn
24-3-2011	Koudum, Polder De Samenvoeging	52.91000 N 5.46139 E	The Netherlands	Ysbrand Galama
11-4-2011	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Pier Zijlstra
15-4-2011	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Chloë Guiraud
6-6-2011	Koudum, Polder De Oosterling	52.93444 N 5.45778 E	The Netherlands	Ysbrand Galama
22-6-2011	It Heidenskip, Polder De Vooruitgang	52.94278 N 5.48694 E	The Netherlands	Ysbrand Galama
13-7-2011	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Ysbrand Galama
16-2-2012	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
6-3-2012	Oudega, Tsjerkemar	52.99833 N 5.55361 E	The Netherlands	Haije Valkema
28-3-2012	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
5-6-2012	It Heidenskip, Polder De Vooruitgang	52.94278 N 5.48694 E	The Netherlands	Ysbrand Galama
11-10-2012	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Rocío Marquez Ferrando
4-4-2013	Koudum, Polder Grote Wester Gersloot-West	52.90056 N 5.43194 E	The Netherlands	Jorge Gutiérrez
12-4-2013	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer
15-4-2013	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer Sieds Boersma

25-4-2013	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Niko Groen
13-6-2013	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
17-6-2013	It Heidenskip, Polder De Vooruitgang	52.94278 N 5.48694 E	The Netherlands	Ysbrand Galama
19-6-2013	It Heidenskip, Polder De Vooruitgang	52.94278 N 5.48694 E	The Netherlands	Ysbrand Galama
20-6-2013	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
20-6-2013	Koudum, Polder De Oosterling	52.93444 N 5.45778 E	The Netherlands	Ysbrand Galama
20-3-2014	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
12-4-2014	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer
18-4-2014	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer Rennie Kramer Ciska Kramer
6-5-2014	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer
7-5-2014	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer
14-6-2014	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
17-6-2014	Workum, Workumermeer	52.99278 N 5.46389 E	The Netherlands	Atser Sybrandy (RUG)
20-6-2014	Gaast, Polder Gaast-Ferwoude	53.01806 N 5.43194 E	The Netherlands	Jelle Loonstra
20-6-2014	Gaast, Jouke Sjoerdspolder	53.00361 N 5.41972 E	The Netherlands	Rene Faber (RUG) Dirk Tanger
16-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Egbert van der Velde

25-3-2015	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
5-4-2015	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer
14-5-2015	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer
13-6-2015	Workum, Polder de Beveiliging	52.99111 N 5.44694 E	The Netherlands	Mo Verhoeven Ysbrand Galama Alice McBride
2-7-2015	Workum, Workumerbinnenwaard-Zuid	52.97917 N 5.41917 E	The Netherlands	Ysbrand Galama
4-7-2015	Workum, Workumerbinnenwaard-Zuid	52.97917 N 5.41917 E	The Netherlands	Ysbrand Galama
18-12-2015	Unche	12.01028 N -15.61444 W	Guinea Bissau	Haije Valkema Hamilton Monteiro
6-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
22-2-2016	Samorra Correia, Belmonte ricefields	38.91667 N -8.83333 W	Portugal	Haije Valkema
29-3-2016	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
3-6-2016	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
23-6-2016	Idzegea, Bratte Polder	52.97528 N 5.55056 E	The Netherlands	Egbert van der Velde
20-3-2017	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Riemer Miedema
23-5-2017	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Ysbrand Galama
9-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Kees de Jager
14-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Haije Valkema

14-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Astrid Kant Ronald Messemaker
21-2-2018	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Siebe Bonthuis
21-2-2018	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Siebe Bonthuis
28-3-2018	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Wiebe Kaspersma
7-6-2018	It Heidenskip, Polder Aent Lieuwes	52.93333 N 5.48361 E	The Netherlands	Jan Kramer Evert H. Schaap
8-6-2018	It Heidenskip, Polder De Vooruitgang	52.94278 N 5.48694 E	The Netherlands	Ysbrand Galama Riemer Miedema
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: Y2RLRB**Name Ringer:** Krijn Trimbos (RUG)**Name 2nd Ringer:****Ringnr:** 3654128 **Ringling Date:** 7-5-2008**Ringling site:** Stavoren, Zuidermeerpolder**Age (in days; 50 = juv.; 99 = ad.):** 99

The Netherlands 52.87611 N 5.38361 E

Resightings of this bird:

Date	Site			Observer(s)
28-5-2008	Warns, Langakker- en Geeuwpolder	52.88028 N 5.42194 E	The Netherlands	Krijn Trimbos (RUG)
20-1-2009	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Pedro Lourenço
29-1-2009	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Pedro Lourenço
2-2-2009	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Pedro Lourenço
16-3-2009	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Ysbrand Galama
27-4-2009	Koudum, Polder Grote Wester Gersloot-West	52.90056 N 5.43194 E	The Netherlands	Tamás Kiss
4-6-2009	Warns, Kampenspolder	52.87472 N 5.39833 E	The Netherlands	Krijn Trimbos (RUG)
9-2-2010	Samorra Correia, Belmonte ricefields	38.91667 N -8.83333 W	Portugal	Jos Hooijmeijer José Alves
10-2-2010	Porto Alto, Ze do Pinho	38.96222 N -8.89167 W	Portugal	Jos Hooijmeijer
17-2-2010	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Job ten Horn
18-2-2010	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Job ten Horn
24-2-2010	Samora Correia, Samora Correia ricefields	38.94194 N -8.88528 W	Portugal	Job ten Horn
22-3-2010	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Krijn Trimbos (RUG)

15-4-2010	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Bram Verheijen
27-5-2011	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marten Sikkema (RUG)
30-5-2011	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Rene Faber
13-3-2012	Koudum, Polder Grote Wester Gersloot-West	52.90056 N 5.43194 E	The Netherlands	Lucie Schmaltz
26-3-2012	It Heidenskip, Heidenschapster Polder	52.95250 N 5.48944 E	The Netherlands	Gjerryt Hoekstra
29-5-2012	Warns, Kampenspolder	52.87472 N 5.39833 E	The Netherlands	Jos Hooijmeijer
17-2-2013	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
12-3-2013	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Mo Verhoeven
19-3-2013	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Nathan Senner
28-3-2013	Waverveen, Polder Groot-Mijdrecht Noord	52.23583 N 4.90472 E	The Netherlands	Rene Faber
9-5-2013	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Jos Hooijmeijer
14-6-2013	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Rene Faber
24-1-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Stef Waasdorp
22-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Hendriekus Algra
26-3-2014	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Rene Faber (RUG)
31-3-2014	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Rene Faber (RUG)

23-6-2014	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Jos Hooijmeijer
9-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
20-2-2015	Porto Alto, Cara Larga	38.96167 N -8.92056 W	Portugal	Haije Valkema
17-3-2015	Koudum, Polder Grote Wester Gersloot-West	52.90056 N 5.43194 E	The Netherlands	Marycha Franken
11-6-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
16-6-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
24-6-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
25-6-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
1-7-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Ysbrand Galama Mo Verhoeven
3-7-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Ysbrand Galama
7-7-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Haije Valkema
8-7-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Ysbrand Galama Jelle Loonstra
9-7-2015	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Haije Valkema
3-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Wim Tijssen
3-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
3-4-2016	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Wender Bil Paulien van der Werf

11-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva, East	38.910421 N -8.919625 W	Portugal	Maarten Hotting
28-3-2017	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
10-6-2017	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
20-6-2017	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
26-6-2017	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
30-6-2017	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Jos Hooijmeijer
3-7-2017	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Jos Hooijmeijer
20-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Siebe Bonthuis
20-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Siebe Bonthuis
12-3-2018	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Mo Verhoeven
19-3-2018	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Wiebe Kaspersma Jelle Loonstra
6-6-2018	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
16-12-2018	Unche	12.01028 N -15.61444 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: Y5LBBY**Name Ringer:** Sjoerd Hobma**Name 2nd Ringer:** Haije Valkema**Ringnr:** 2502976 **Ringling Date:** 7-6-2012**Ringling site:** Workum, Workumerbinnenwaard-Noord**Age (in days; 50 = juv.; 99 = ad.):** 14

The Netherlands 52.99611 N 5.41139 E

Resightings of this bird:

Date	Site			Observer(s)
13-6-2012	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Jos Hooijmeijer
27-10-2013	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Mo Verhoeven
11-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Haije Valkema
9-4-2014	Idzegea, It Joo	52.98583 N 5.55500 E	The Netherlands	Haije Valkema
13-4-2015	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Gjerryt Hoekstra
14-4-2015	Idzegea, It Joo	52.98583 N 5.55500 E	The Netherlands	Egbert van der Velde
24-1-2016	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Haije Valkema
19-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Dirk Tanger
21-3-2016	Oudega, Tsjerkemar	52.99833 N 5.55361 E	The Netherlands	Egbert van der Velde
30-5-2016	Gaastmeer, De Lange Hoek	52.95000 N 5.53333 E	The Netherlands	Egbert van der Velde
21-2-2018	Porto Alto, Toneca	38.95361 N -8.93639 W	Portugal	Siebe Bonthuis
21-2-2018	Porto Alto, Toneca	38.95361 N -8.93639 W	Portugal	Siebe Bonthuis
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

Colourcode: Y5LRRR**Name Ringer:** Nathan Senner**Name 2nd Ringer:** Mo Verhoeven**Ringnr:** 2504840 **Ringling Date:** 31-5-2013**Ringling site:** Koudum, Haanmeer**Age (in days; 50 = juv.; 99 = ad.):** 15

The Netherlands 52.92333 N 5.43500 E

Resightings of this bird:

Date	Site			Observer(s)
14-6-2013	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Rene Faber
21-6-2013	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Ysbrand Galama Mo Verhoeven
15-1-2014	Isla Mayor, Veta la Palma	36.97083 N -6.23500 W	Spain	Rene Faber
8-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
21-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Rienk Jelle Hibma
21-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Hendriekus Algra
24-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Rienk Jelle Hibma
24-2-2014	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Hendriekus Algra
9-4-2014	Workum, Workumerbinnenwaard-Noord	52.99611 N 5.41139 E	The Netherlands	Dolf van der Gaag
7-2-2015	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
9-6-2015	Warns, Kampenspolder	52.87472 N 5.39833 E	The Netherlands	Marycha Franken
11-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
11-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama

11-2-2016	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
24-2-2016	Samorra Correia, Belmonte ricefields	38.91667 N -8.83333 W	Portugal	Haije Valkema
25-3-2016	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
12-6-2016	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
10-7-2016	Koudum, Polder De Samenvoeging	52.91000 N 5.46139 E	The Netherlands	Jelle Loonstra Mo Verhoeven
2-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Ysbrand Galama
2-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
2-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Gjerryt Hoekstra
8-2-2017	Porto Alto, Giganta ricefields, Ponta da Erva	38.91667 N -8.93333 W	Portugal	Maarten Hotting
16-2-2017	Porto Alto, Giganta ricefields, Cardal	38.921737 N -8.977164 W	Portugal	Jacob de Vries
12-3-2017	Koudum, Haanmeer	52.92333 N 5.43500 E	The Netherlands	Wiebe Kaspersma
14-3-2017	Koudum, Polder Grote Wester Gersloot-West	52.90056 N 5.43194 E	The Netherlands	Wiebe Kaspersma
17-3-2017	Koudum, Polder Grote Wester Gersloot-West	52.90056 N 5.43194 E	The Netherlands	Wiebe Kaspersma
10-4-2017	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
18-2-2018	Carregado, ricefields	39.029416 N -8.941725 W	Portugal	Wim Tijssen
17-3-2018	Molkwerum, Noorderpolder	52.91139 N 5.41778 E	The Netherlands	Jelle Loonstra

31-5-2018	Stavoren, Zuidermeerpolder	52.87611 N 5.38361 E	The Netherlands	Marycha Franken
18-12-2018	Blom	11.99556 N -15.79361 W	Guinea Bissau	Jos Hooijmeijer Hamilton Monteiro Ruth Howison

