

Regulus No 6/2018 featured two articles about the Black Stork, one in German, the other in French. This is a slightly summarised version of the articles in English. Please send any questions or comments to the translator David Crowther at dcrowther@pt.lu.

The Black Stork by Patric Lorgé (p. 6-10)

The Black Stork Ciconia nigra is a breeding species of Europe and Asia, wintering in Africa and the Indian subcontinent respectively. In southern Africa, wintering Black Stork avoid areas occupied by the local population, which is not migratory. The current European breeding population (including Russia) is put at between 9 800 and 13 900 pairs. Over recent decades, the central and western European population has increased, while many populations in the Baltic states are declining markedly.

Before 1920, there were only very sporadic sightings of Black Stork in Luxembourg, and between 1920 and the mid-1960s there were none at all. It was only after 1966 that sightings started to pick up again, and in 1985 there were the first ever summer sightings. The first breeding record dates from 1993. Nowadays, in 2018, there are some 10-15 breeding pairs each year.

Breeding sites in Luxembourg are all in the north, centre and east of the country. Up to and including 2018, there has been a recorded total of 136 broods and 360 birds. All are covered by an international colour-ringing programme.

Adult Black Storks arrive in Luxembourg from their wintering grounds in sub-Saharan West Africa as early as March. They waste no time in re-occupying their nest, which is often used year after year. The eggs are laid at the beginning of April, and the youngsters hatch around the middle of May. By mid-July, the juveniles are fully grown; from the moment they leave the nest, they are on their own. They set off on their long migration without guidance from their parents. Adult Black Stork pass through Luxembourg from breeding grounds further north between the middle of August and the middle of September.

Habitat and feeding ecology

Black Storks are much more dependent on water as a feeding habitat than are White Storks. During the breeding season, Black Storks will seek food mainly along and in shallow woodland and meadow streams and ponds. They feed on small fish (of up to 20 cm), crustaceans and aquatic insects. They are shy and retiring birds which do not take kindly to human interference or even presence. Their nest sites are mainly in secluded deciduous and mixed woodland with a good stock of old trees (minimum 100 years old) and suitably old nest-site trees. Woodland that hosts a Black Stork nest is by definition ecologically sound.

Forests in the north and east of Luxembourg meet these conditions: they are quiet and have plentiful watercourses and ponds. Ideally, they boast trout streams, with plenty of bullheads *Cottus gobio*. Parts of the country without extensive woodland or with dense human settlements (like the south-west) have so far not attracted the Black Stork. In other parts of the country, though, even apparently suboptimal woodland is proving acceptable as breeding habitat.

Black Storks build their large nests on a side-branch of an old oak or in the crown of an old beech. The important thing is that there should be a clear flightpath to the nest without too much vegetation. Clear-felled or wind-blown clearings are useful for this purpose.

Black Storks roam over a wide area. Satellite tracking has revealed that Black Storks spend 55% of their time in the breeding season within a radius of 10 km of the nest site, a further 34% between 10 km and 20 km, and 11% more than 20 km from home base.

The problem of wind turbines

The Black Stork is a sensitive species that is heavily dependent on thoughtful habitat planning and management. Important as it is to exploit renewable sources of energy like wind power, wind turbines can adversely affect large birds like the Black Stork. Individual birds, especially inexperienced juveniles, can be struck and killed by the rotating blades. More likely, though – birds will give a wide berth to ‘wind farms’, making the area in general unattractive. In addition, wind farms tend to acquire wide access pathways, which attract traffic, walkers and dogs and act as a deterrent to shy birds like the Black Stork.

Conservation efforts in Luxembourg

Luxembourg’s Black Stork population has been closely monitored since Day 1. Wherever possible, the nestlings are colour-ringed, and breeding success and territories are logged year by year. The *natur&ëmwelt Centrale Ornithologique* works with professional tree-climbers and the local foresters to ring the nestlings and to make sure that no forestry work is done in the breeding season that might disturb the birds at or near their nest site. The first concern of nest recorders and ringers is always to ensure that no harm is done to the adult birds or their young.

With the appearance of the Black Stork as a breeding species, *natur&ëmwelt* has been using donations to buy up wet meadowland, mainly in the north of the country, and make it more attractive as a feeding and foraging site, e.g. by clearing away inappropriate spruce stands and digging new ponds.

Box text on p. 9:

What we can do to optimise Black Stork breeding habitat:

- *Maintain and manage a varied, essentially agrarian, landscape with food-rich water bodies and wet areas in the open fields and in woodland.*
- *Conserve and protect ecologically important slow-flowing and standing water bodies in secluded woodland and in the farmed countryside within 5 km of known nest sites.*

What we can do to protect the nest sites:

- *Conserve and protect potential nest sites within a 50 m radius.*
- *Set up a protection zone of at least 300 m around nest sites.*

What we can do to prevent wind turbine strike:

- *Refuse to authorise the construction of ‘wind farms’ within 1500 m of the nearest known nest site.*
- *Refuse to authorise construction in woodland with known breeding sites.*

Map on p. 9:

- Black dots: breeding sites of Black Storks which were ringed in Luxembourg
- Grey dots: ‘recoveries’ of Black Storks which were ringed in Luxembourg
- Brown dots: origin of Black Storks which were ringed outside Luxembourg

Black Stork CM32 – a real Diva? by Frédéric Chapalain, Nicolas Gendre and Antoine Joris (p.11-12)

The Black Stork has been a breeding species in France since 1973. Most members of the west European breeding population migrate to south of the Sahara, and most of these take a route through the Pyrenees mountain passes (1530 of them in 2018) and across the Strait of Gibraltar.

Increasingly, though, Black Stork are tending to shun the Mediterranean crossing and are spending the winter in the Iberian Peninsula – an estimated 250-300 of them in 2017. A very few individuals do not even migrate as far as Spain, preferring to stay on the French side of the Pyrenees. There were just a handful in 2004, but by 2018 the number had risen to 30-40.

Since 2010, one Black Stork, bearing the name CM32-DIVA, ringed by Patric Lorgé (*the author of the previous article*) in Luxembourg on 12 June 2008, has been observed every year in the Wildlife Park at Sigean, between Montpellier and Perpignan. CM32 makes his appearance in the animal enclosure from about mid-August on, and then proceeds to spend the winter in the Narbonne marshes and the nearby rice-fields.

During the breeding season, CM32 is to be found in the Meuse *département*, not that far from Luxembourg. He first turned up there in June 2012 near the regional nature reserve at Amel Lake. He first came to observers' attention when he was seen 'mobbing' a pair of White Stork who were attempting to nest on an artificial platform near the lake embankment. The White Stork failed to breed that year, and it proved impossible to locate CM32's nest site either.

In autumn 2015, the French *Ligue pour la Protection des Oiseaux* reached an agreement with the Sigean Wildlife Park to equip CM32 with a GPS-GSM-UHF satellite transmitter, with a view to ascertaining its winter behaviour and its summer nest site.

CM32 was duly captured on 20 September 2015 within the wildlife enclosure (where it was in the company of rhinos, antelopes, pelicans, herons and seabirds) and fitted with a Teflon 'rucksack' with the transmitter. For the next three winters, the pattern was very similar: CM32-DIVA spent one or two months at the Wildlife Park at Sigean before moving on from mid-October to the districts of Narbonne and Gruissan, just to the north of the park.

This wintering habitat is composed largely of coastal marshes and rice-fields. CM32 shares the spot with White Stork and just a few Black Stork (five in 2017-2018). They feed on the large number of Louisiana Crawfish *Procambarus clarkii* in the rice-fields and the adjacent ditches. Towards the end of January, CM32 returns to the Wildlife Park for a short stay before setting off on his northward migration again. No observer has so far seen any of CM32's offspring, or his mate, at the wintering site, thus demonstrating once again that Black Storks do not migrate in family groups.

On 3 March 2016, it became immediately obvious where CM32's nest site was – in the Meuse *département*, quite close to other Black Stork nest sites which had been located by sight. CM32 bred and raised two young in 2016, a further two in 2017, and was again

successful in raising young in 2018. His mate was likewise ringed and fitted with a satellite device in the late spring of 2017. She wintered in Africa, where she disappeared in the spring of 2018.

In 2018, CM32 mated with another female. They proceeded to raise four young in the same nest as before, monitored by the *Office National des Forêts*. The nest site, in a section of coppice-with-standards, features in the local forest management plan.

Photo captions:

p. 11 – Black Stork CM32 was ringed as a nestling in Luxembourg in 2008. Since 2010 it has wintered in and around the Wildlife Park at Sigean, between Montpellier and Perpignan.

p. 12 – Since 2015, CM32 has been satellite-tracked on its migratory movements.