

Herzlich Willkommen zur Konferenz



# Gemeinsamer Luftraum

Auf dem Weg zu einem  
vogelfreundlichen Stromnetz



Renewables  
Grid Initiative

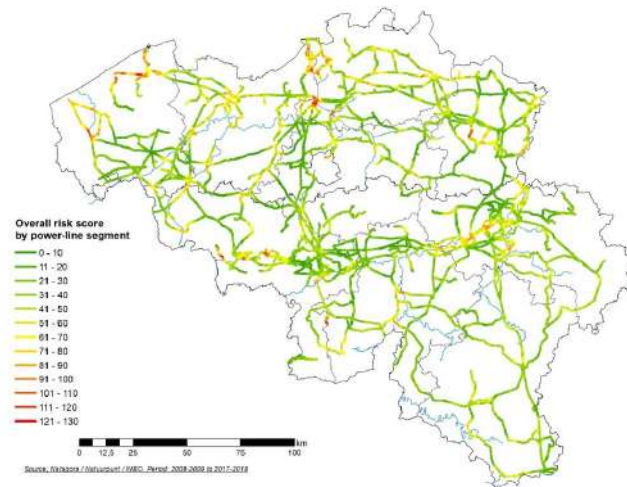
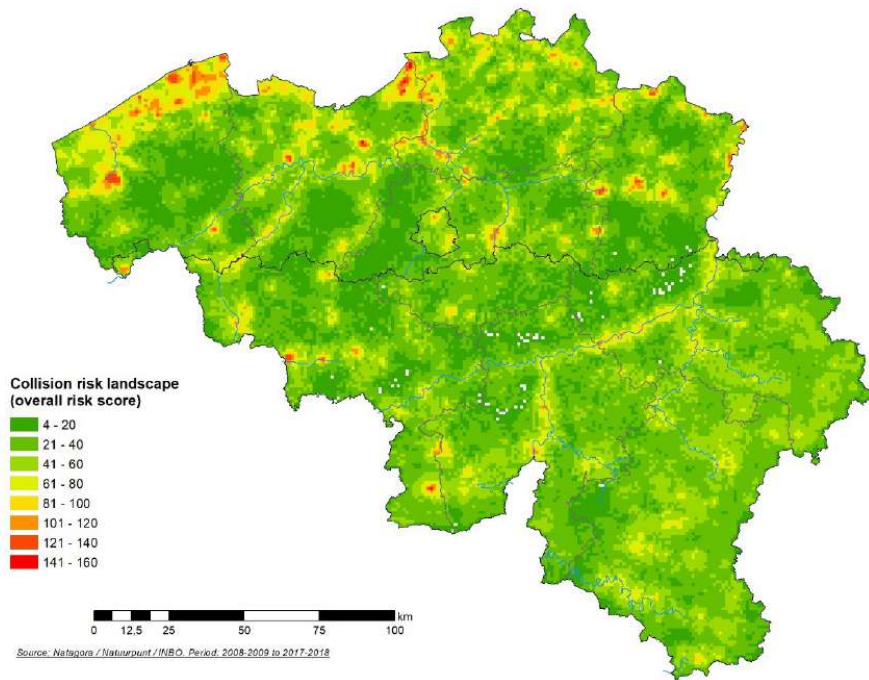


# Kollaborative Sensitivitätenkartierung in Belgien zur besseren Planung von einem vogelsicheren Stromnetz

- Dominique Verbelen  
Wissenschaftlicher Mitarbeiter  
Vögel und Amphibien



# RISK ANALYSIS OF HIGH-VOLTAGE POWER LINES IN BELGIUM TO MAP BIRD COLLISION-PRONE SPANS



**ANTOINE DEROUAUX (NATAGORA)**  
**JEAN-YVES PAQUET (NATAGORA)**  
**OLIVIA GEELS (ELIA)**  
**DOMINIQUE VERBELEN (NATUURPUNT)**  
*dominique.verbelen@natuurpunt.be*

# HOW DID IT ALL START?



## The 'Oudenaarde'-case

Period: 1/12/2013 - 16/01/2014

Dead/injured birds: **65**

# TSOs AND NGOs: 1+1 = 3



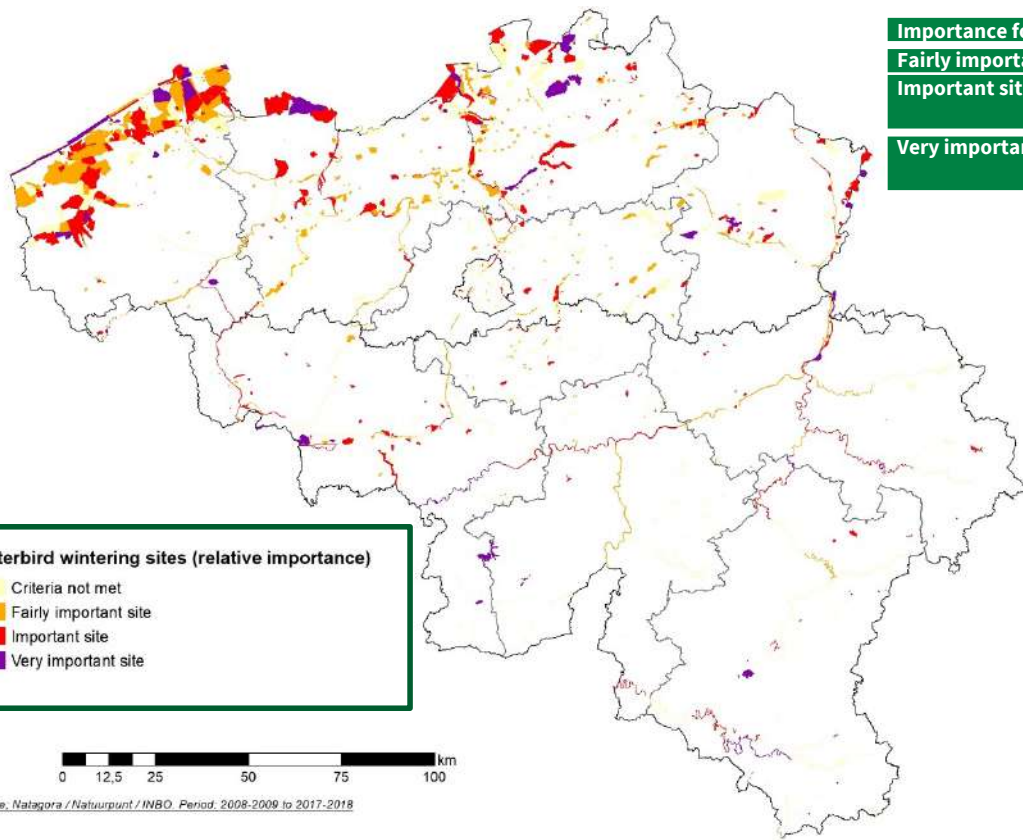
RESEARCH INSTITUTE  
NATURE AND FOREST







# WATERBIRD WINTERING SITES



Importance for waterbirds	Criterion
Fairly important site	Regularly 100-1,000 waterbirds
Important site	Regularly more than 1,000 waterbirds or at least 2% of the regional wintering population of at least one species
Very important site	Regularly at least 15% of the regional wintering population of at least one species

## Waterbird wintering sites (relative importance)

- Criteria not met
- Fairly important site
- Important site
- Very important site

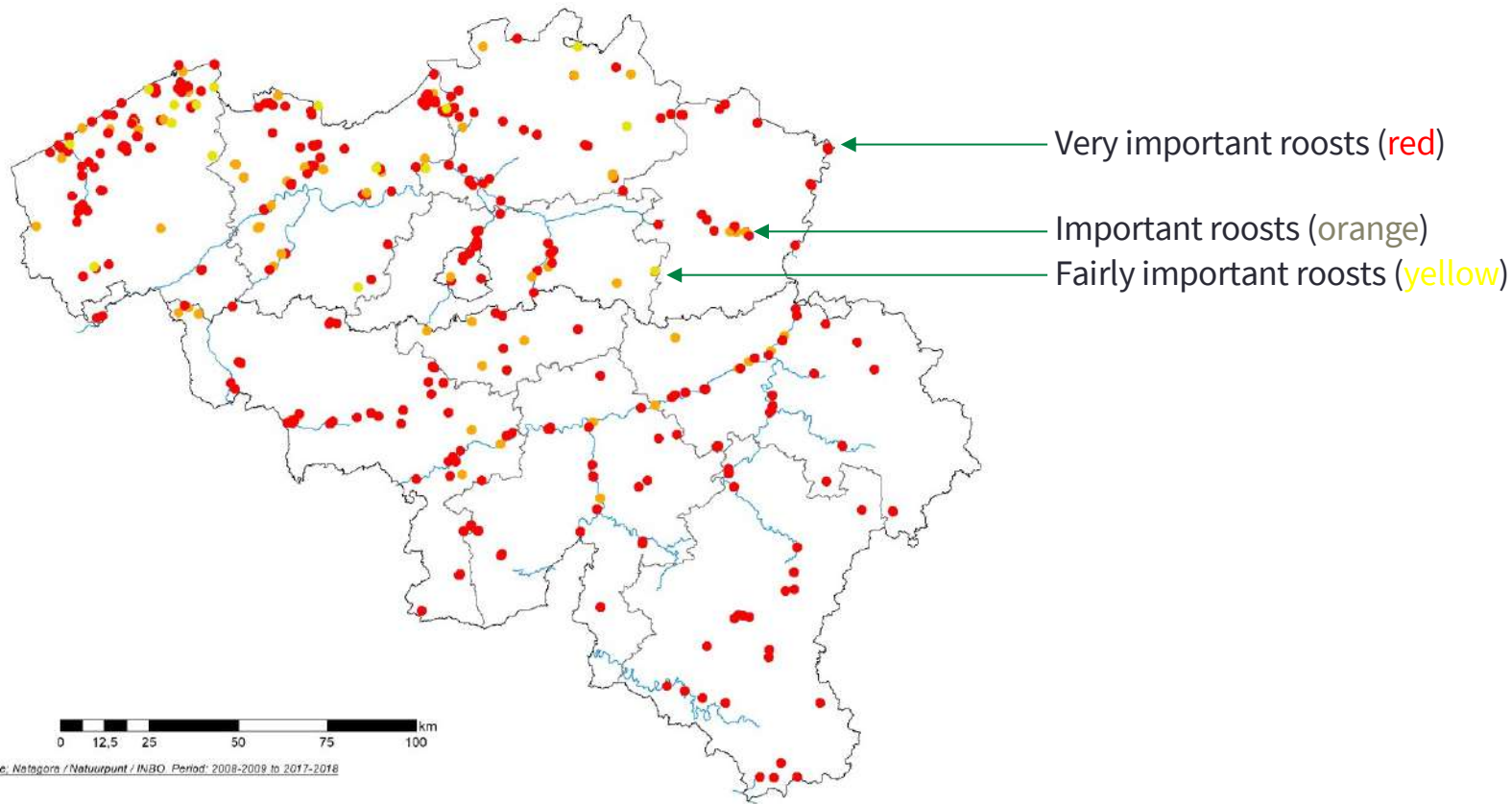


# ROOSTS OF SENSITIVE SPECIES





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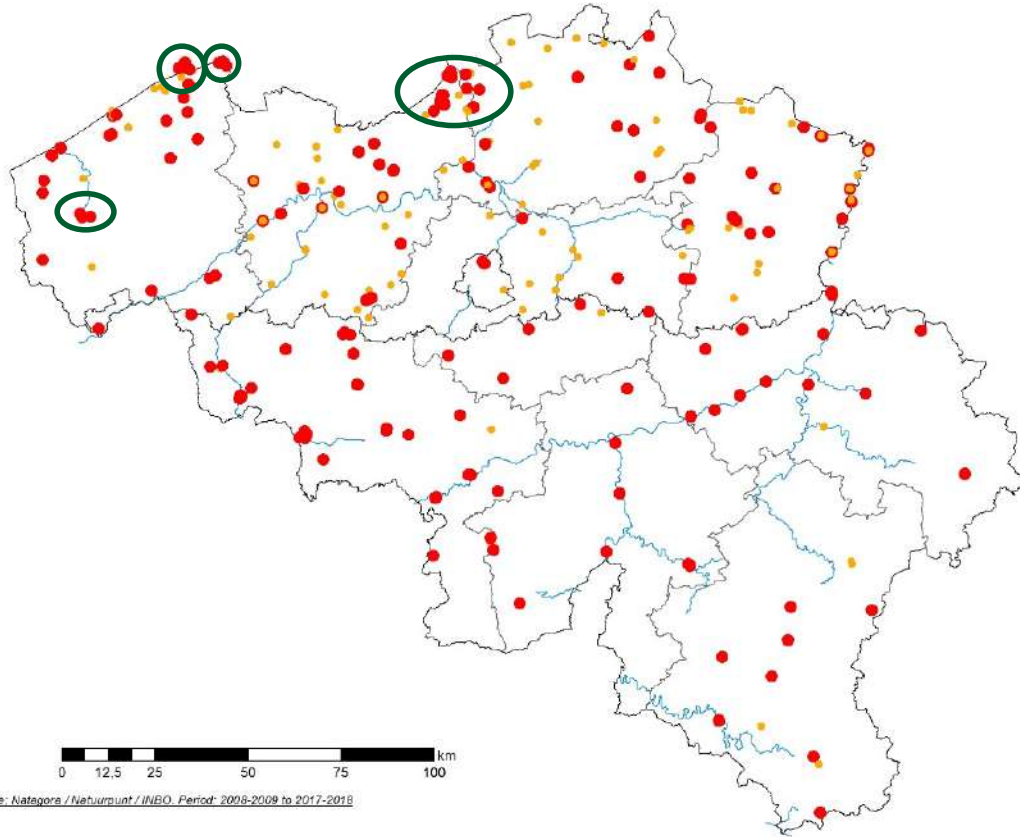


# BREEDING COLONIES OF SENSITIVE SPECIES

English name	scientific name	included in the risk map?	sensitivity to collisions	conservation relevance
Great Cormorant	<i>Phalacrocorax carbo</i>	yes	high	low
Grey Heron	<i>Ardea cinerea</i>	yes	high	low
Eurasian Spoonbill	<i>Platalea leucorodia</i>	yes	high	high
Mediterranean Gull	<i>Larus melanocephalus</i>	yes	high	high
Black-headed Gull	<i>Larus ridibundus</i>	yes	high	high
Common Gull	<i>Larus canus</i>	yes	high	high
Lesser Black-backed Gull	<i>Larus fuscus</i>	yes	high	low
Herring Gull	<i>Larus argentatus</i>	yes	high	low
Sandwich Tern	<i>Sterna sandvicensis</i>	yes	high	high
Common Tern	<i>Sterna hirundo</i>	yes	high	high
Little Tern	<i>Sterna albifrons</i>	yes	high	high
Sand Martin	<i>Riparia riparia</i>	no	low	high
Rook	<i>Corvus frugilegus</i>	no	low	low



# BREEDING COLONIES OF COLLISION SENSITIVE SPECIES



Source: Natagora / Natuurpunt / INBO. Period: 2008-2009 to 2017-2018

**Harbour of Zeebrugge: large breeding colonies of gulls and terns**

**Het Zwin: large breeding colonies of gulls and terns**

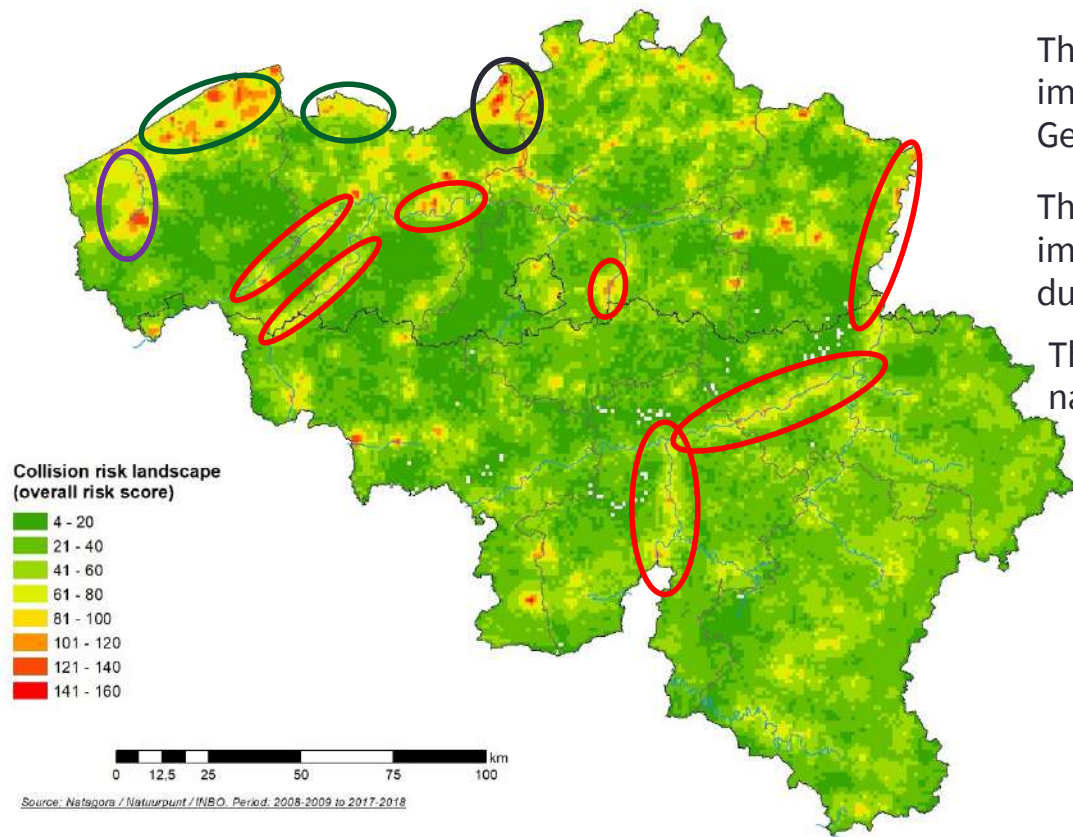
**The Yser Valley: (a.o.) breeding colonies of Grey Heron and Eurasian Spoonbill**

**Harbour-area of Antwerp: (a.o.) breeding colonies of Eurasian Spoonbill and Mediterranean Gulls**

	Distance of a high-voltage line to a considered area				
Bird layer considered	Inside	< 1 km	1 to 3 km	3 to 5 km	> 5 km
Waterbird roost	25, if very important	14	9	4	0
	20, if important				
Waterbird colony	25, if very important	14	9	4	0
	20, if important				
Important waterbird site	30, if very important; 25 if important	14	9	4	0
	20, if fairly important				
Rare breeding bird area	10 for an area with one rare species				
	20 for an area with two or three rare species				
	25 for an area with four or five rare species				
	30 for an area with more than five species				
Migration corridor	8, if a power line pylon is inside, 12 for a coastal corridor				
Plover staging area	5 for each of the three species, when presence cut-off is reached				
Widespread breeding bird	4 for each species, when presence cut-off is reached				
Woodcock area	4 if Woodcock is predicted to be present by the spatial models				
Geese foraging area	5 in the areas of occurrence defined by the spatial models				



# COLLISION RISK LANDSCAPE



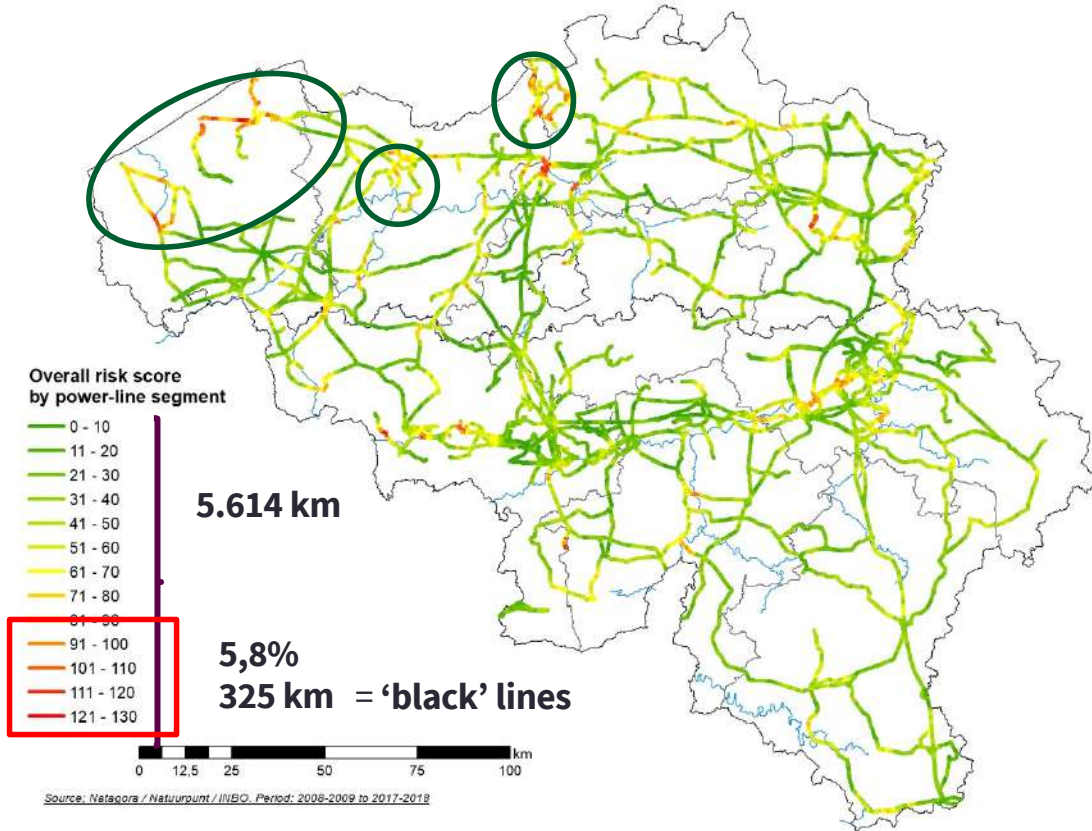
The Polders: (a.o.) because of internationally important numbers of overwintering White-fronted Geese, Pink-footed Geese and Greylag Geese

The Yser Valley: large numbers of waterfowl, important staging area of Black-tailed Godwit during spring migration

The Harbour of Antwerp: mainly because of nature restoration works

Major river valleys

# OVERALL RISK SCORE BY POWER LINE SEGMENT



## PRIORITIES

1. Polders
2. Harbour-area of Antwerp
3. Harbour-area of Ghent









# COLLECTING DATA BY VOLUNTEERS

**Waarnemingen.be**

Ingeleid als Pieter Van Dorsselaer Admin Uitloggen Forum Help Kies taal en/of site

Invoeren Waarnemingen Soorten Overzichten Mijn Waarnemingen.be Projecten

## Waarneming

Velden met ! zijn verplicht

protocol losse waarneming

datum / tijd 2016-01-22 hh:mm

gebied Ervelde zuid - Walprj (21500)

soortgroep Vogels

soort !

aantal 1 onbekend

onbekend man vrouw

Zeker

Escape

Onthoud alle velden onder dit aankruisvak

stadium (kleed) onbekend

gedrag

overvliegend zuidwest

verkeersslachtoffer

vondst (dood)

vangst

pleisterend

opvliegend

rustend

slooptplaats

(kleur)ingdringend

sporen

dood exemplaar in collectie

vangst door kat

in brakkel

of

hoogspanningsleiding slachtoffer

raamslachtoffer

ruilend

op geluidsrecorder

met fototoestel

Info Gedragsregels Privacy voorwaarden Gekoppelde werkgroepen Voor werkgroepen FAQ Handleiding Keuzehulp Mobiel

Goed de locatie aan door met de muis op de kaart de plek aan te klikken waar de soort gezien is !!!

Kaart Satelliet

precisie 10m 100m 1km Gebied

wgs84: lat lng

ObsMapp

**TOTAL: 673 COLLISION VICTIMS  
SUBMITTED (period: 8 July 2015 - 1 July 2022)**

English name	scientific name	inds.	%
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	92	13,6%
	<i>Columba livia forma domestica</i>		
Feral Pigeon		77	11,4%
Wood Pigeon	<i>Columba palumbus</i>	45	6,6%
White Stork	<i>Ciconia ciconia</i>	33	4,9%
Herring Gull	<i>Larus argentatus</i>	30	4,4%
Mute Swan	<i>Cygnus olor</i>	27	4,0%
Common Gull	<i>Larus canus</i>	19	2,8%
Grey Heron	<i>Ardea cinerea</i>	18	2,6%
Woodcock	<i>Scolopax rusticola</i>	16	2,3%
Northern Lapwing	<i>Vanellus vanellus</i>	16	2,35%

# ELECTROCUTIONS



## TIP OF THE ICEBERG:

- **26 White Storks** (*Ciconia ciconia*)
- **1 Red Kite** (*Milvus milvus*)
- **2 Common Buzzard** (*Buteo buteo*)
- **4 Peregrine Falcons** (*Falco peregrinus*)
- **1 Barn Owl** (*Tyto alba*)
- **11 Eagle Owls** (*Bubo bubo*)

(dataset until 30 April 2022) (n=53)

**ALL ON MIDDLE AND/OR LOW VOLTAGE LINES!**

# DEDICATED SEARCHES



## Monitoring of 'black' lines

- on a regular interval
- during the winter halfyear
- before and after bird deterrent devices were put up

# RESULTS



**TOTAL: 888 COLLISION VICTIMS  
SUBMITTED (period: 8 July 2015 - 1 July  
2022)**

English name	scientific name	inds.	%
Wood Pigeon	<i>Columba palumbus</i>	228	25,6%
Feral Pigeon	<i>Columba livia forma domestica</i>	83	9,3%
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	79	8,8%
Northern Lapwing	<i>Vanellus vanellus</i>	49	5,5%
Common Gull	<i>Larus canus</i>	46	5,1%
Greylag Goose	<i>Anser anser</i>	29	3,2%
Mallard	<i>Anas platyrhynchos</i>	28	3,1%
Eurasian Teal	<i>Anas crecca</i>	21	2,3%
Eurasian Coot	<i>Fulica atra</i>	20	2,2%
Herring Gull	<i>Larus argentatus</i>	19	2,1%



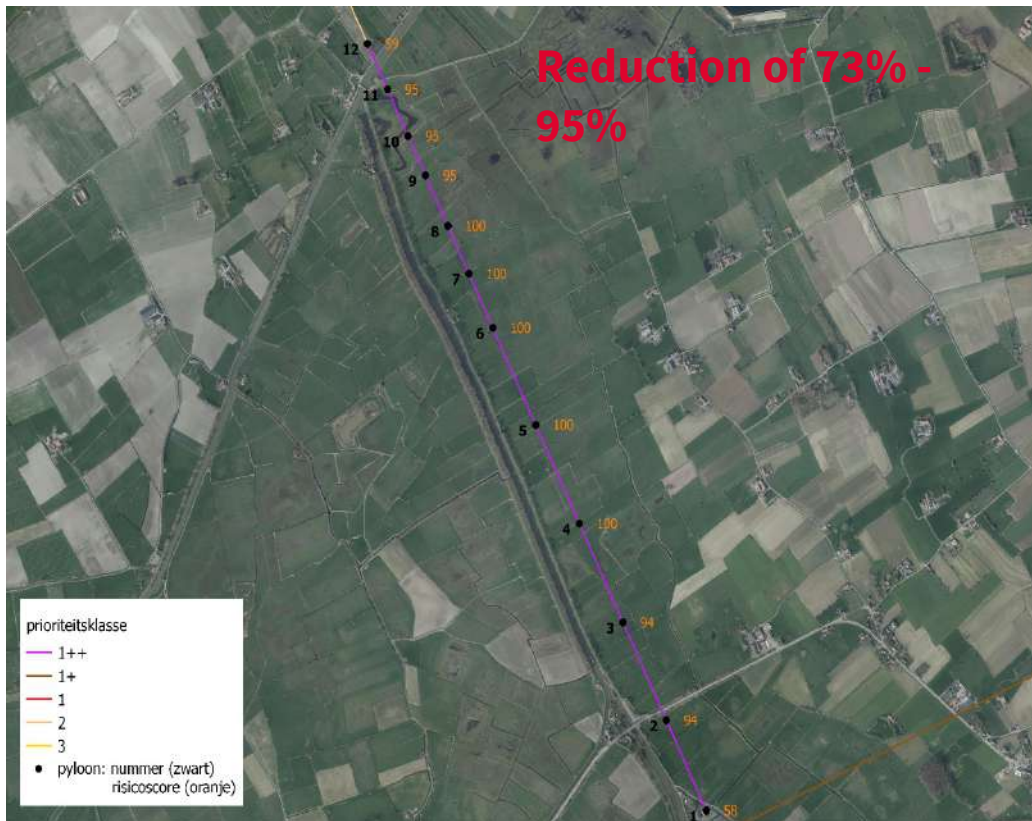
# THE NOORDSCHOTE CASE



## BIRDS MIGRATING AT NIGHT



# BEFORE AND AFTER



English name	scientific name	2018	2021
Unidentified species	<i>Aves spec.</i>	30	
Northern Lapwing	<i>Vanellus vanellus</i>	18	
Common Starling	<i>Sturnus vulgaris</i>	7	1
Common Pheasant	<i>Phasianus colchicus</i>	7	
Wood Pigeon	<i>Columba palumbus</i>	6	1
Eurasian Coot	<i>Fulica atra</i>	4	2
Common Gull	<i>Larus canus</i>	5	
Duck, Goose, Swan spec.	<i>Anatidae spec.</i>	4	
Fieldfare	<i>Turdus pilaris</i>	4	
Eurasian Teal	<i>Anas crecca</i>	3	1
Black-headed Gull	<i>Chroicocephalus ridibundus</i>	3	
Herring Gull	<i>Larus argentatus</i>	3	
Redwing	<i>Turdus iliacus</i>	2	
Common Moorhen	<i>Gallinula chloropus</i>	2	
Common Snipe	<i>Gallinago gallinago</i>	2	
Mallard	<i>Anas platyrhynchos</i>	2	
Song Thrush	<i>Turdus philomelos</i>	2	
Grey Heron	<i>Ardea cinerea</i>	1	
Jack Snipe	<i>Lymnocyrtus minimus</i>	1	
Golder Plover	<i>Pluvialis apricaria</i>	1	
Eurasian Jackdaw	<i>Coloeus monedula</i>	1	
Ruff	<i>Calidris pugnax</i>	1	
Pink-footed Goose	<i>Anser brachyrhynchus</i>	1	
Eurasian Sparrowhawk	<i>Accipiter nisus</i>	1	
Feral Pigeon	<i>Columba livia forma domestica</i>		1
Tundra Bean Goose	<i>Anser serrirostris</i>	1	
Common Redshank	<i>Tringa totanus</i>	1	
TOTAL		113	6



# THE ERTVELDE CASE



# BEFORE AND AFTER

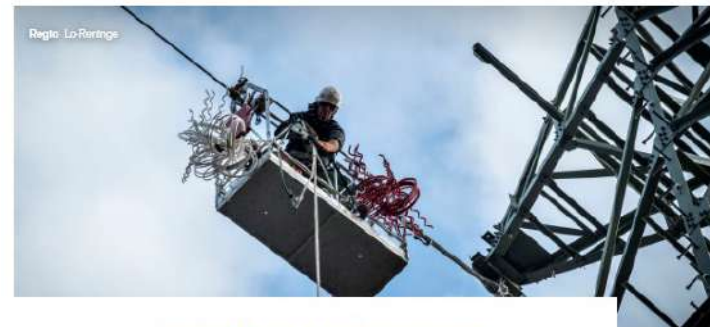


English name	scientific name	2015-2016	2021-2022
Common Gull	Larus canus	9	8
Wood Pigeon	Columba palumbus	3	12
Feral Pigeon	Columba livia forma domestica	6	5
Black-headed Gull	Chroicocephalus ridibundus	2	6
Norhern Lapwing	Vanellus vanellus	4	1
White-fronted Goose	Anser albifrons	2	3
Common Starling	ardea cinerea	1	4
Chaffinch	Fringilla coelebs		5
Unidentified species	Aves indet.	2	3
Herring Gull	Larus argentatus	1	3
Gadwall	Mareca strepera	1	2
Egyptian Goose	Alopochen aegyptiaca	1	2
Eurasian Teal	Mareca penelope	1	2
Mallard	Anas platyrhynchos		3
Goose (unidentified)	Anser spec.		2
Greylag Goose	Anser anser	2	
Eurasian Coot	Fulica atra		2
Pochard	Aythya ferina	2	
Common Snipe	Gallinago gallinago		2
Song Thrush	Turdus philomelos		2
Grey Heron	Ardea cinerea	1	
Meadow Pipit	Anthus pratensis		1
Stock Dove	Columba oenas		1
Eurasian Jackdaw	Corvus monedula		1
Redwing	Turdus iliacus	1	
Fieldfare	Turdus pilaris		1
Pintail	Anas acuta	1	
Coal Tit	Periparus ater		1
Tufted Duck	Aythya fuligula		
Goldfinch	Carduelis carduelis		
total		40	72



# POSITIVE PRESS COVERAGE

NWS Hootpunten Regio Kijk Luister Net binnen Zoeken



## Project tegen vogelsterfte aan hoogspanningslijn in Noordschote succes: "Van 113 naar 6 dode vogels"

Aan de hoogspanningslijn in Noordschote, hangen sinds kort vogelkruilen, die de lijn beter zichtbaarder maken voor vogels. Het project om het aantal dode vogels terug te dringen, is een succes. "Voor sommige soorten is het aantal dode vogels met 95 procent verminderd", zegt Natuurpunt.

Aan de hoogspanningslijn in Noordschote, een deelgemeente van Lo-Reninge, hangen sinds kort vogelkruilen. Die zijn bedoeld om de hoogspanningslijn zichtbaarder te maken voor de vogels, waardoor ze er minder zouden tegen vliegen en dan ook overleven.

"Het project is een groot succes", vertelt Dominique Verbeelen van Natuurpunt. "We hebben die lijn onderzocht voor er vogelkruilen hingen. Toen waren er 113 vogels die arteen vlogen. Nadat de hoogspanningslijn bebokend was, waren dat er nog maar 6. Athankelijk van de soort vogel gaat het om een daling van 75 tot 95 procent dodelijke slachtoffers.

Hoogspanningsnetbeheerder Elia belooft nu om de komende 10 jaar bijna 200 kilometer hoogspanningslijn in Vlaanderen van vogelkruilen te voorzien om de vogelsterfte te verminderen.

## national television news : 6

press release by BELGA : 5

regional television news : 10

newspapers : 42

news websites : 65

positive reactions from NGO-members

positive reactions from Elia



Elia's actionplan in line with  
Sustainable Development Goals of the  
United Nations

One of the many goals:

- Equip bird deterrent devices on **200 km**  
of the most dangerous 'black' lines **by**  
**2030**

# TAKE AWAY MESSAGES

- 1) Good **collaboration** between **TSOs** & **NGOs** is **essential** to avoid many bird casualties.
- 2) **Recent datasets** on the **occurrence of birds** are **essential** for sensitivity mapping.
- 3) **Volunteers** are of key importance to collect such data.
- 4) A user-friendly **dataplatfrom** is a very cost efficient means to collect data on power line victims.
- 5) A good **risk-atlas** is a **very useful tool** to help TSOs to plan new power lines & decide which existing power lines have to be equipped first with bird-deterrent devices.
- 6) The number of '**black**' **lines** is often only a **small %** of the total grid.
- 7) We have to **reach out** to **DSO's** as well (electrocutions).
- 8) If partners have a **mutual trust** in one another, they can make a real **difference**.