



„Installation of the bird protection measures on the high
voltage electricity transmission grid in Lithuania “ Nr. LIFE13
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Birds' monitoring within the high voltage electricity transmission grid in Lithuania: outcomes and results

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Results of the Ex-ante and Ex-post monitoring on the effectiveness of the project conservation actions



The main targets of the action:

- To evaluate changes of the birds' deaths before and after installation of the practical project measures on the high-voltage electricity power lines.
- Separately observe White Storks' mortality trends before and after installation of the practical project measures on the high-voltage electricity power lines.



EX –ANTE results collected by LOD

- Until 2014 data about birds' mortality, caused by collision with overhead high-voltage electricity power lines, were collected only in Kaunas.
- During EX-ANTE activity **16** birds' death cases caused by collision with overhead high-voltage electricity power lines were collected by LOD.



EX-ANTE results collected by LITGRID

- In 2014 LITGRID recorded **79** short circuits in their overhead high-voltage electricity power lines across Lithuania.
- After control, **41** cases out of **79** short circuits were identified as caused by birds.



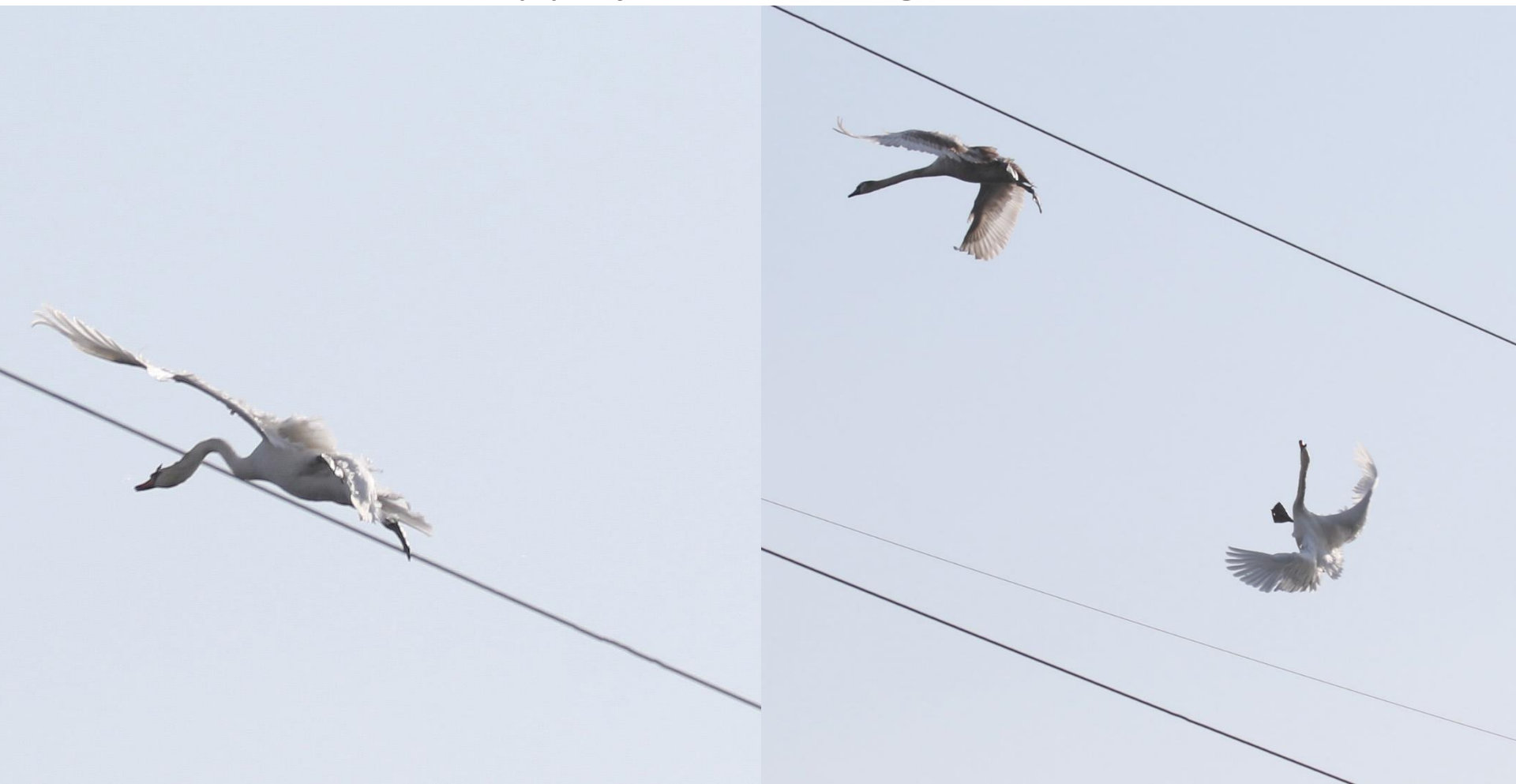
All places where short circuits were recorded in 2014.





EX-POST results collected by LOD in a period 2014-2018

- During EX-POST monitoring in 2014-2018 - **196** dead or injured birds were found by project ornithologists.



Mute Swan after collision with overhead high electricity power lines in Kaunas. In total 112 birds died or were injured within the period of 5 years



Golden Plover
after collision
with overhead
high electricity
power lines
near Ignalina



Robin after
collision with
overhead high
electricity
powerlines
near Ignalina



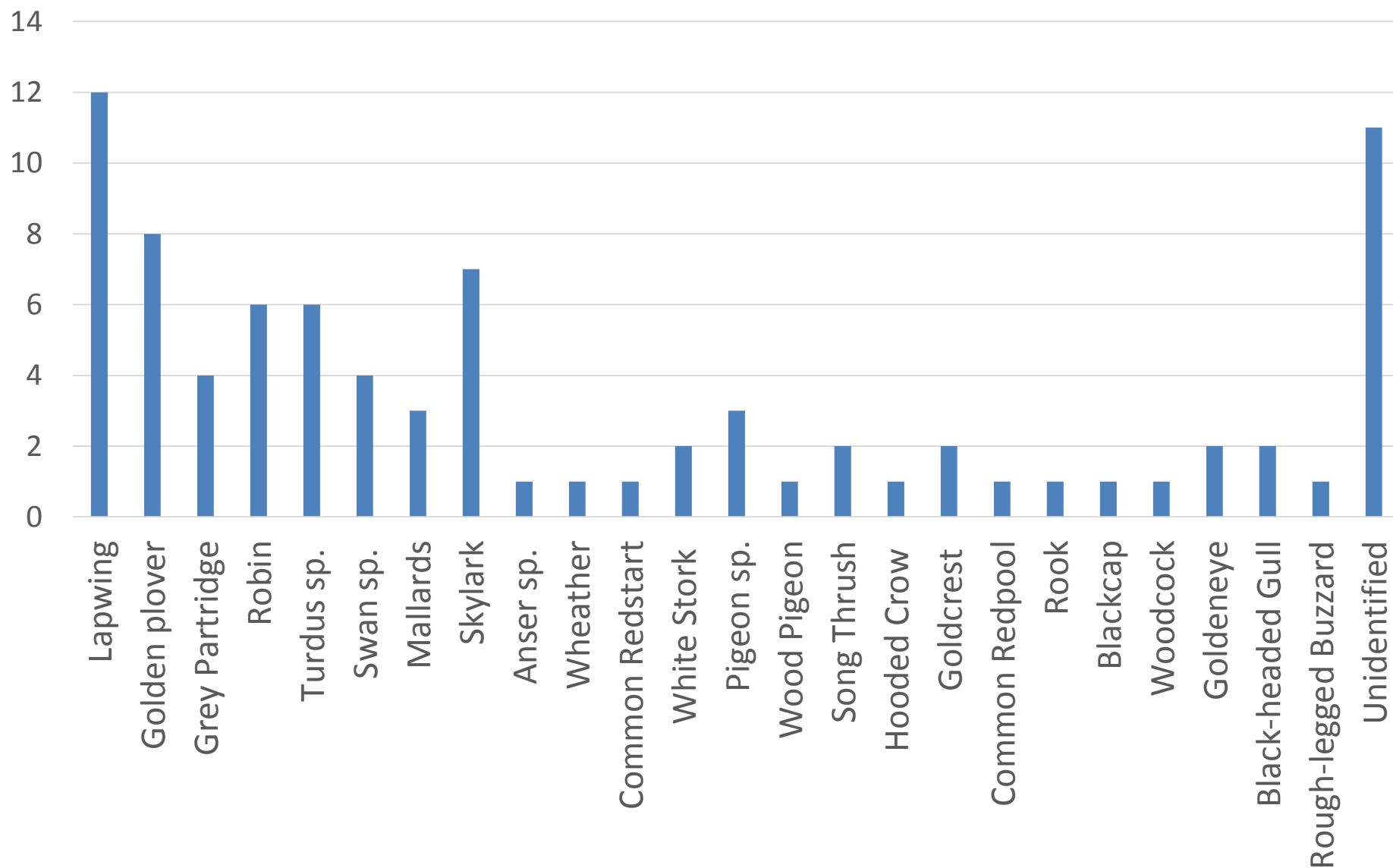
Skylark after
collision with
overhead high
electricity
power lines
near Šiauliai



Rough-legged
Buzzard after
collision with
overhead high
electricity
power lines
near Kretinga



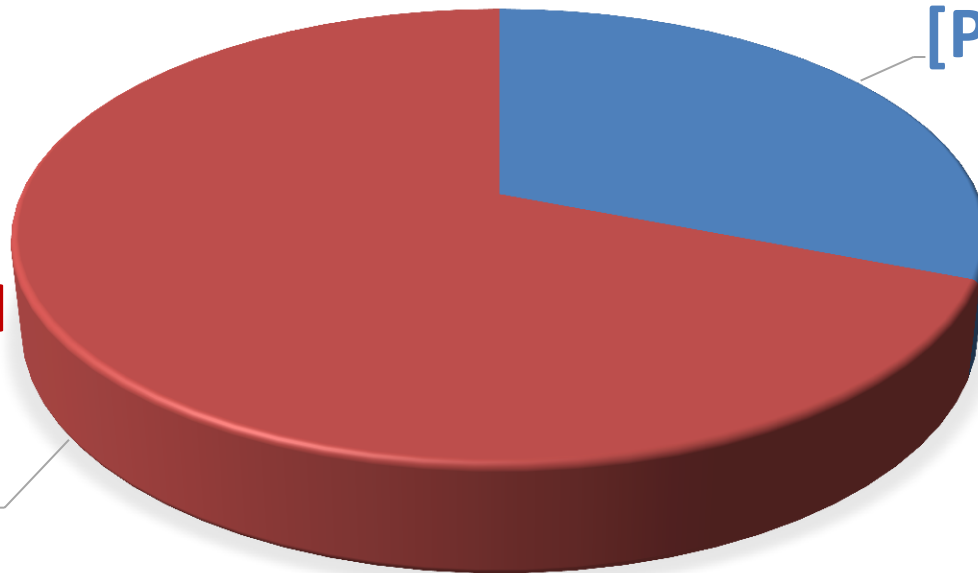
Bird species found after collision (excluding swans in Kaunas)



Percentage of dead birds found under the lines with installed project measures and without (excluding swans in Kaunas)

Installed
 protection
 measures
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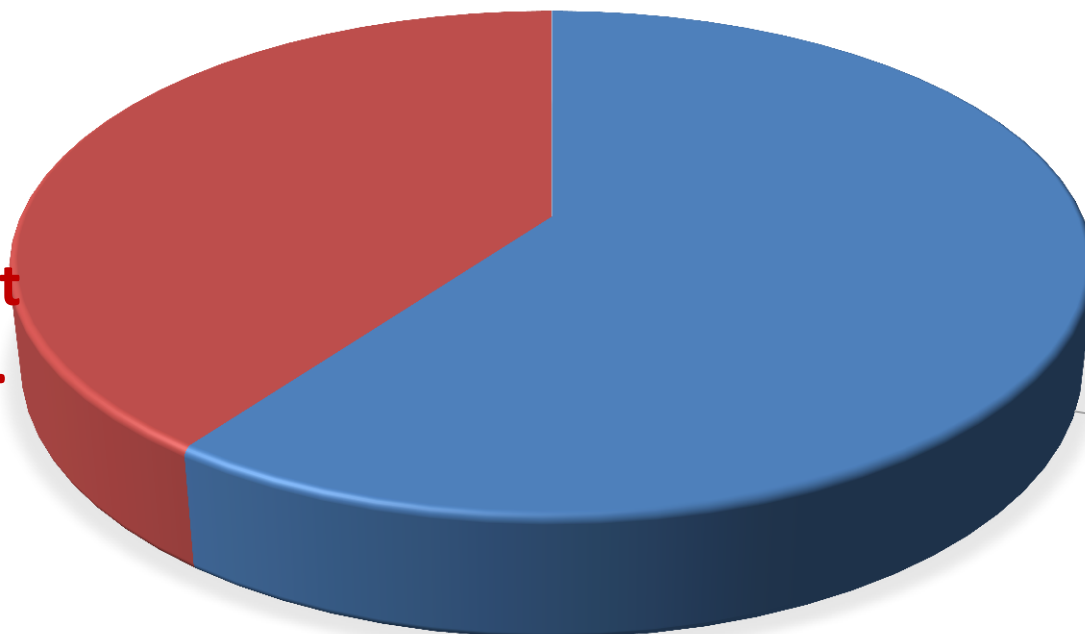
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Kilometres walked under the lines with installed project measures and without

Kilometers walked under the lines without protection	Kilometres walked under the lines with installed protection
255	170

**Kilometres
walked
under the
lines without
protection...**



**Kilometres
walked
under the
lines with
installed...**

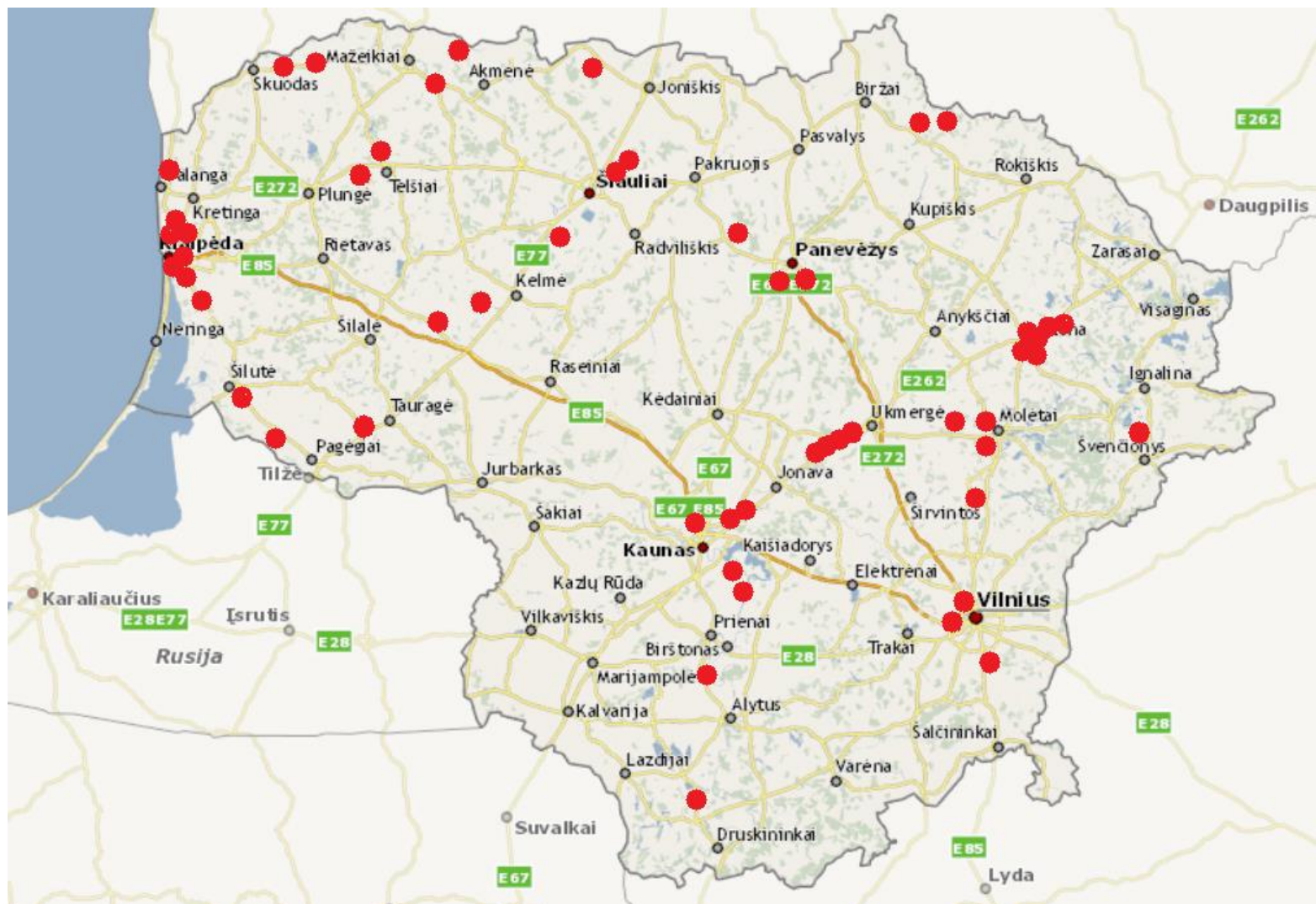
EX-POST results collected by LITGRID in a period 2015-2018

- In 2015 LITGRID recorded **19** short circuits caused by birds, but only **2** of them were on the lines with installed project measures.
- 2016 - **12** short circuits; **2** on the lines with project measures.
- 2017 - **23** short circuits; **3** on the lines with project measures.



Pre-migration flocks of White Storks often suffer from high-voltage electricity transmission lines





Data received from Animal Welfare Association (AWA)

- In 2015 AWA received 10 birds injured after collision with power lines or electrocution.
- 2016 - 5 birds.
- 2017 - 2 birds.







Ex-ante and Ex-post monitoring on the effectiveness of the project conservation actions: Common Kestrel protection on electricity pylons



The main targets of the action:

- To reduce deficit of breeding places for Common Kestrel (*Falco tinnunculus*) on electricity pylons by installing 580 nesting boxes on electricity grid in Lithuania
- To increase breeding success of Common Kestrel's population in Lithuania

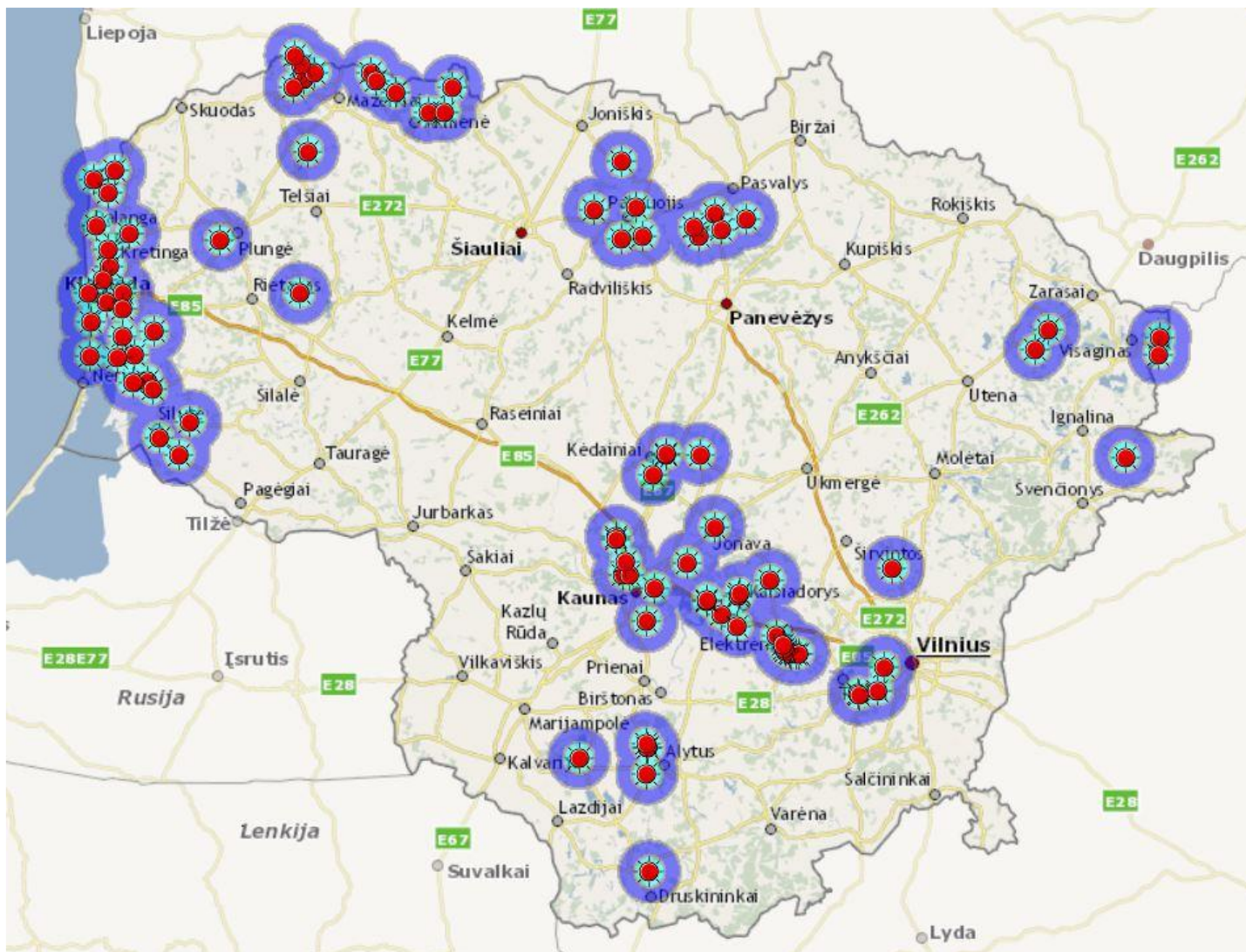




Monitoring before erection of nest boxes

- Survey of occupied nesting boxes of Common Kestrel was made by LOD members covering all Lithuanian territory;
- Questionnaire was sent to the staff of protected areas administrations;
- From collected data maps were produced according registers of breeding territories of Common Kestrel;
- The places to erect nesting boxes were chosen on the electricity grid closer to the breeding areas

Common Kestrel breeding attempts in Lithuania



EX -ANTE:

Common Kestrel breeding situation in Lithuania before project actions

- National breeding population was estimated at 150-300 pairs
- Information covers data from 10 past years
- In all territories where nesting boxes were erected, it was a new praxis (never done before)
- Before project Common Kestrel was nesting in various locations: from old corvids nests to cities buildings
- Just before project some attempts to install nesting boxes were made in Western part of Lithuania
- In Western part of Lithuania breeds about 50 % of national Lithuanian population

Monitoring of erected nesting boxes includes

- Two parameters are recorded:
 - Occupation of nesting boxes
 - Breeding success
- During monitoring all data are entered to the online data base
- Nesting boxes will be monitored during project duration
- We hope the highest occupancy of nesting boxes will be after 4-5 years after installation.



EX –POST RESULTS

- Until breeding season in 2017 for Common Kestrel were erected 475 nesting boxes
- After monitoring 74 occupied nesting boxes recorded



Nesting boxes erected for Common Kestrel until breeding season 2017

Kelias: Pradžią >> Inkilų išdėstymas

Inkilų išdėstymas

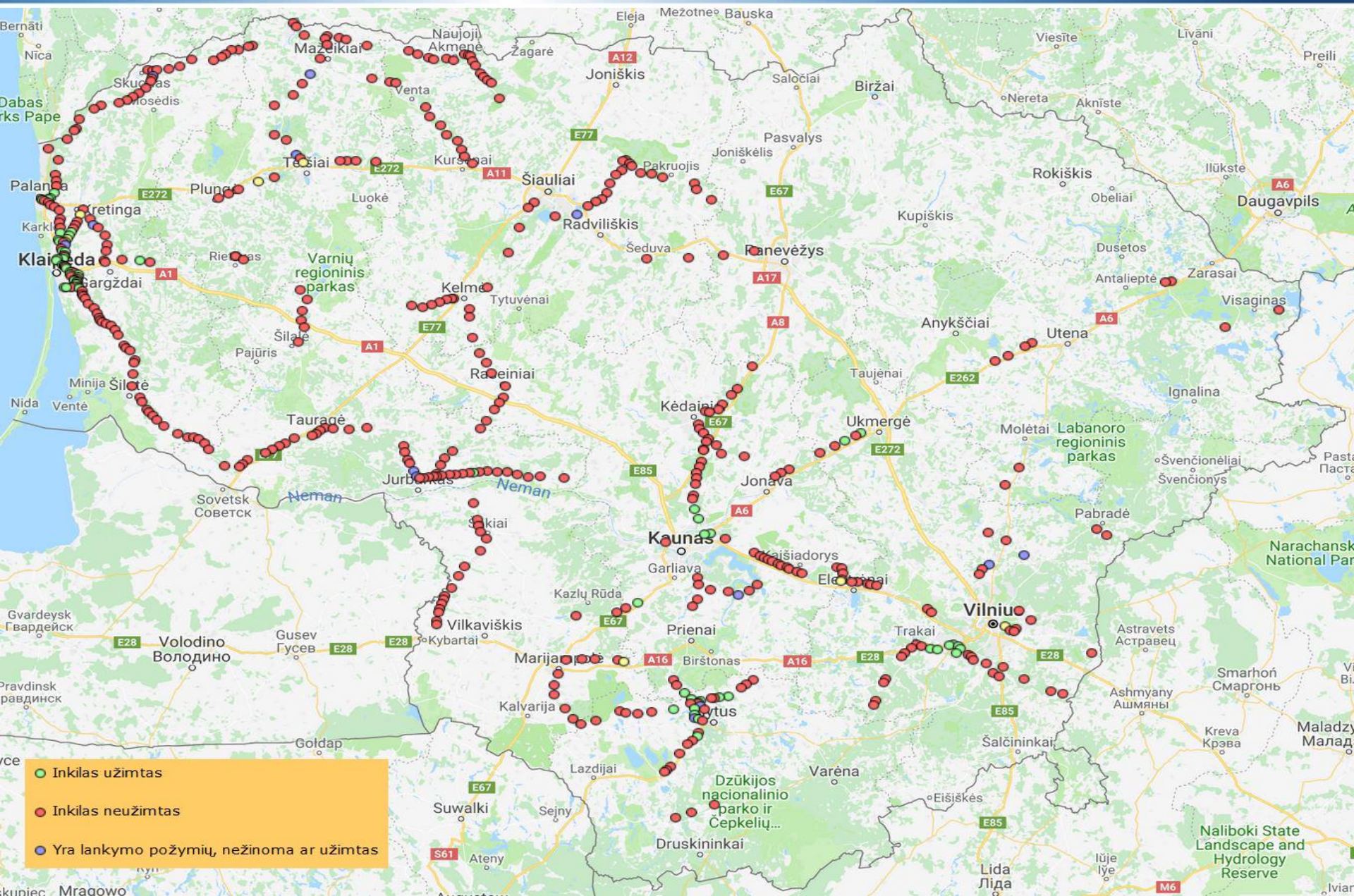


District	2015 Year	2016 Year
Alytaus r.	1	7
Jonavos r.		
Jurbarko r.		
Kauno r.		3
Kėdainių r.		1
Klaipėdos m.		6
Klaipėdos r.		8
Kretingos r.		3
Palangos m.		1
Prienų r.		
Trakų r.		1
Ukmergės r.		
Vilniaus m.		4
Vilniaus r.	2	1
Total successful breeding	3	36

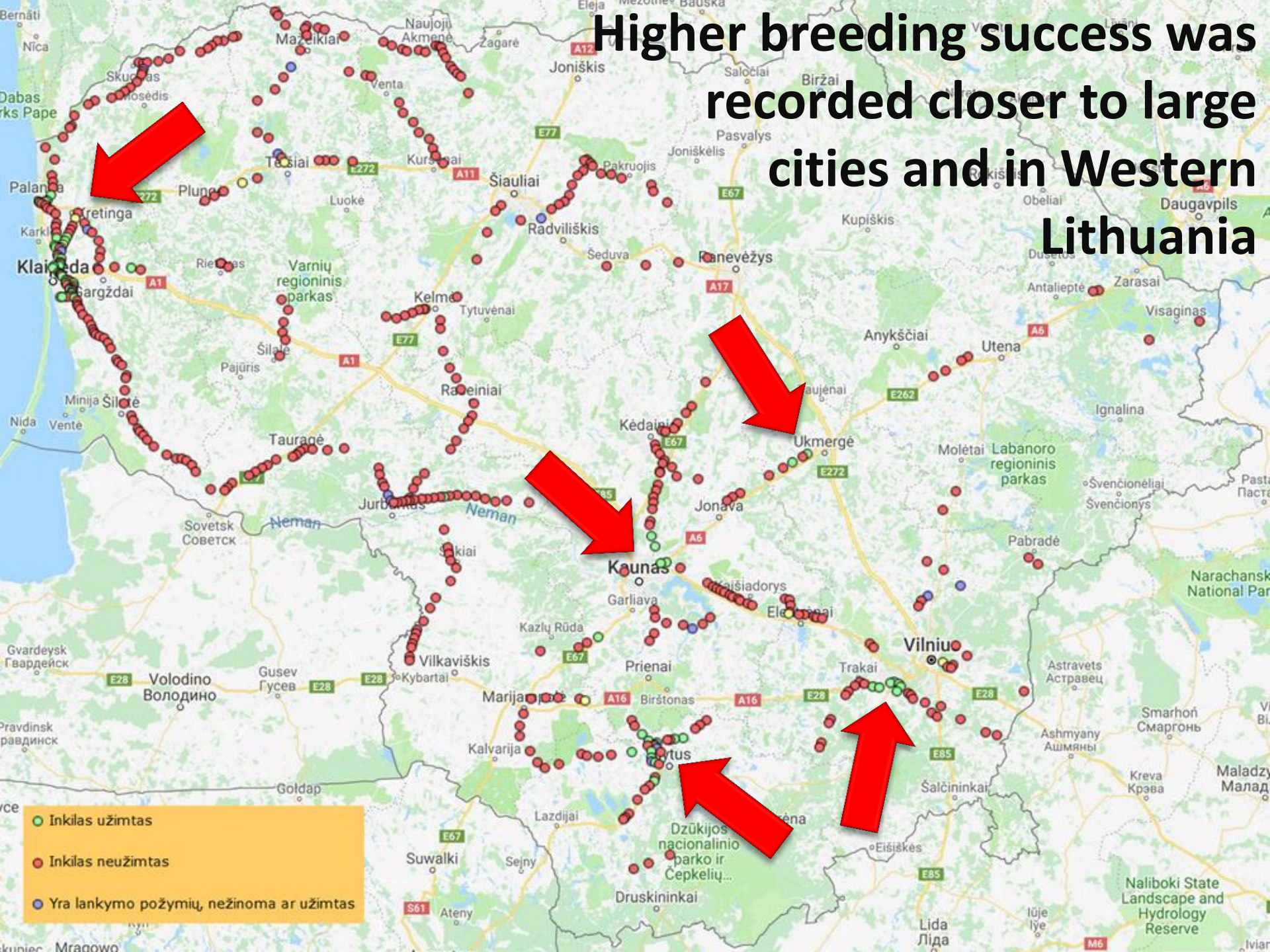


District	2015 Year	2016 Year	2017 Year
Alytaus r.	1	7	12
Jonavos r.			1
Jurbarko r.			1
Kauno r.		3	5
Kėdainių r.		1	
Klaipėdos m.		6	21
Klaipėdos r.		8	13
Kretingos r.		3	3
Palangos m.		1	1
Prienų r.			1
Trakų r.		1	1
Ukmergės r.			2
Vilniaus m.		4	4
Vilniaus r.	2	1	
Total successful breeding	3	36	64

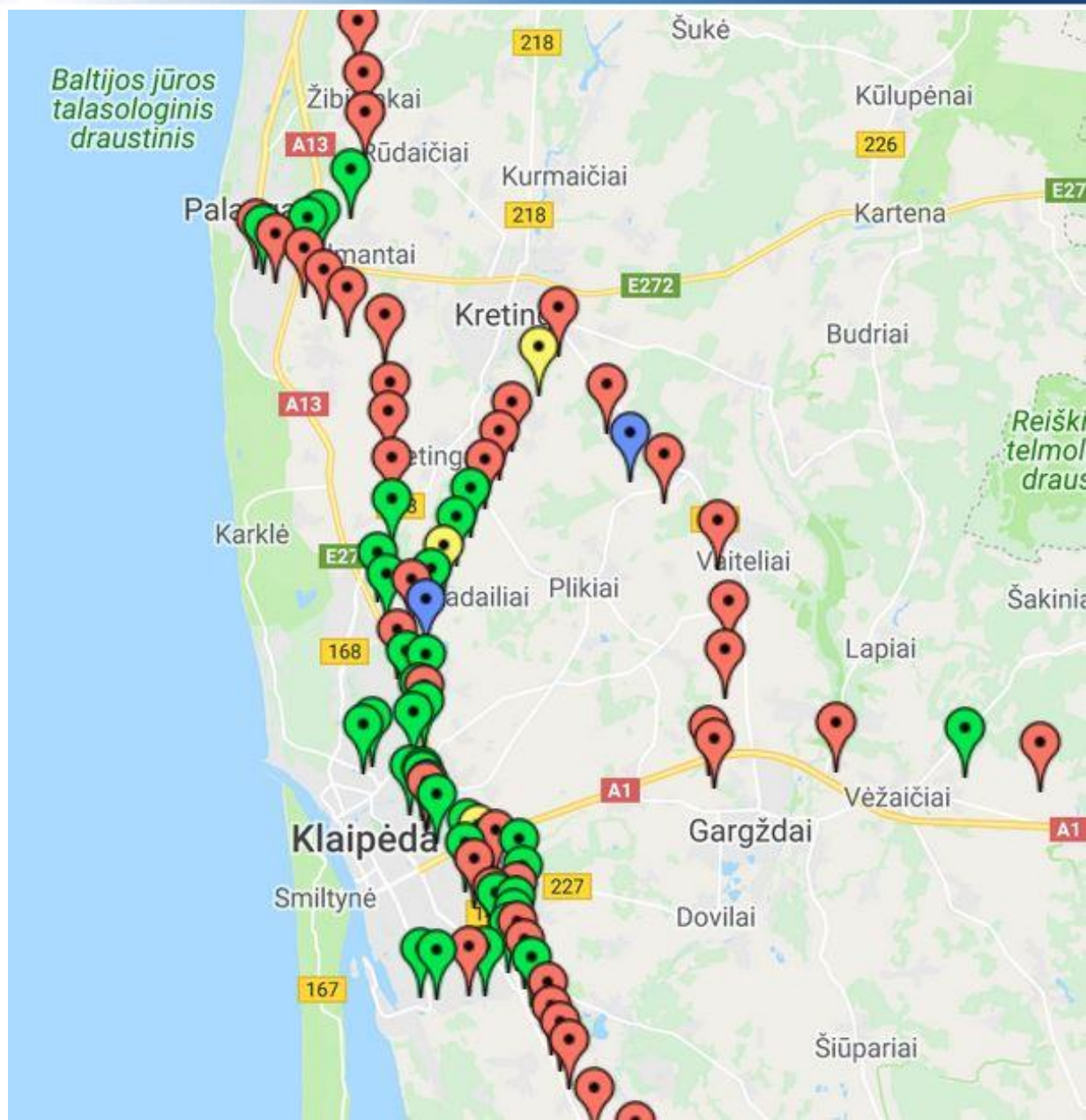




Higher breeding success was recorded closer to large cities and in Western Lithuania



- Klaipėda region on of the key breeding sites for kestrels in Lithuania
- Breeding birds expand their territories based on the erected nesting boxes



EX -ANTE RESULTS:

Breeding success and juveniles' numbers

- Totally in 2017 year were occupied 74 nesting boxes, raised minimum 198 juveniles, 2016 respectively 108 juveniles.
- 2017 years were occupied 13,47% of all erected nesting boxes
- Average juveniles number in 2016 - 4,2 per nesting box, in 2017 – 3,5/nest box.
- Totally from the 2015 in nesting boxes raised more than 451 juveniles!



- In one of the nesting boxes in 2016 was found breeding female ringed in Poland in 2015!





Thank you!

