



## Forum Carpaticum, Eger

Why harmonization of large carnivores' monitoring in the Carpathian region is needed?

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Organisation/ Institution:

WWF DCP/Romania

## Why monitoring?

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Wildlife populations are dynamic and change over time in terms of:

- Geographical range/ distribution
  - Dynamics
  - Density
  - Behavior
  - Etc.
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# Why monitoring?

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## Monitoring:

- Helps and lays the foundations for decision-making
  - Helps evaluate the effectiveness of management actions
  - Helps the improvement/ adaptation of management measures
  - Provides feedback loop for learning about the system
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## Types of monitoring

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- **Targeted monitoring** keeps track of the condition and response to management of species and habitats that are identified as being of concern or interest.
- **Cause-and-effect monitoring** investigates the mechanisms that underlie habitat and species response to management and other forms of disturbance. This type of monitoring is conducted using a rigorous statistical sampling framework, testing a priori hypotheses.
- **Context monitoring**, which is broader in scope, addresses a wide array of ecosystem components at multiple scales without specific reference to influences of ongoing management.



[Brown bear](#)  
[Wolf](#)  
[Wolverine](#)  
[Eurasian lynx](#)  
[Iberian lynx](#)  
[Golden jackal](#)

## EasyDNNNews



## Golden jackals across Europe: legal issues

7, 2015 / Categories: [Gallery](#)

Golden jackals (*Canis aureus*) are advancing across Europe. From its traditional range in the southeast of the continent, the species is undergoing a remarkable northward and westward range expansion, the drivers of which are not yet fully understood. Increasingly, jackals are turning up in places without historic records of the species. It is surprising, therefore, that the golden jackal remains something of a neglected species from the perspectives of conservation research, policy and law – certainly when compared with the larger carnivores. Considerable confusion has arisen among experts and decision-makers across Europe, and the species has become the subject of several misconceptions.

This complex and intriguing state of affairs is the focus of a new study, conducted at the crossroads of biology and law,

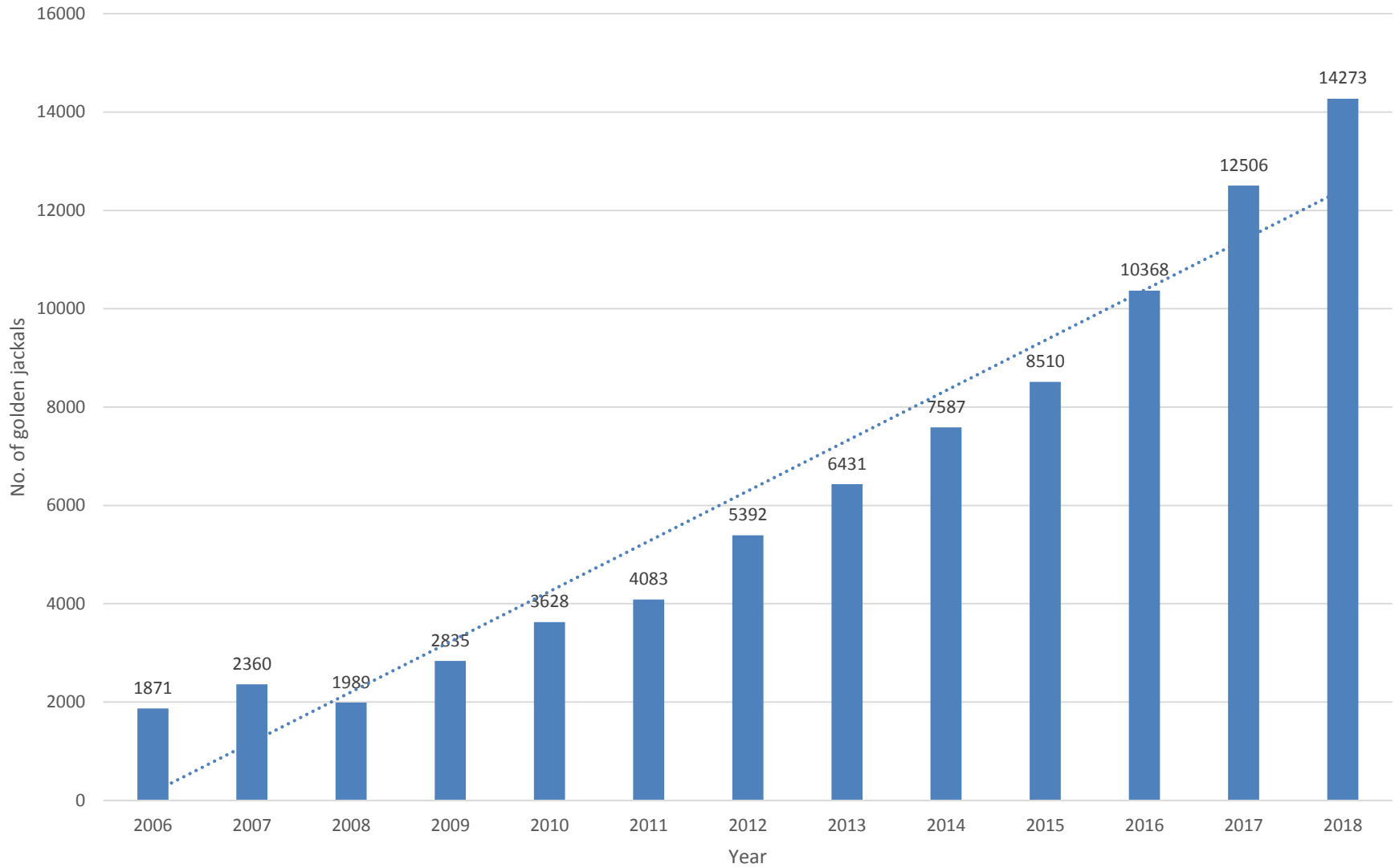
published in the journal *Biodiversity and Conservation*.

### Remarkable range expansion

Besides addressing various legal issues, the new study reviews the development of the golden jackal's range expansion. It provides an up-to-date overview of the species' current European range, based on prior studies and incorporating many recent records (see distribution map). Jackals have already been spotted as far as Switzerland, Germany, Poland, northern Ukraine, Belarus and even the Baltic states.

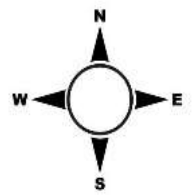
The golden jackal is *not* an (invasive) alien species

## Golden Jackal population size in Romania 2006 - 2018



# Golden Jackal Population Size Romania

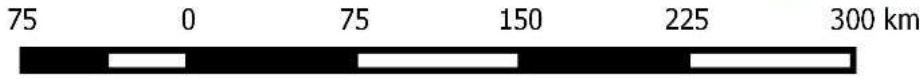
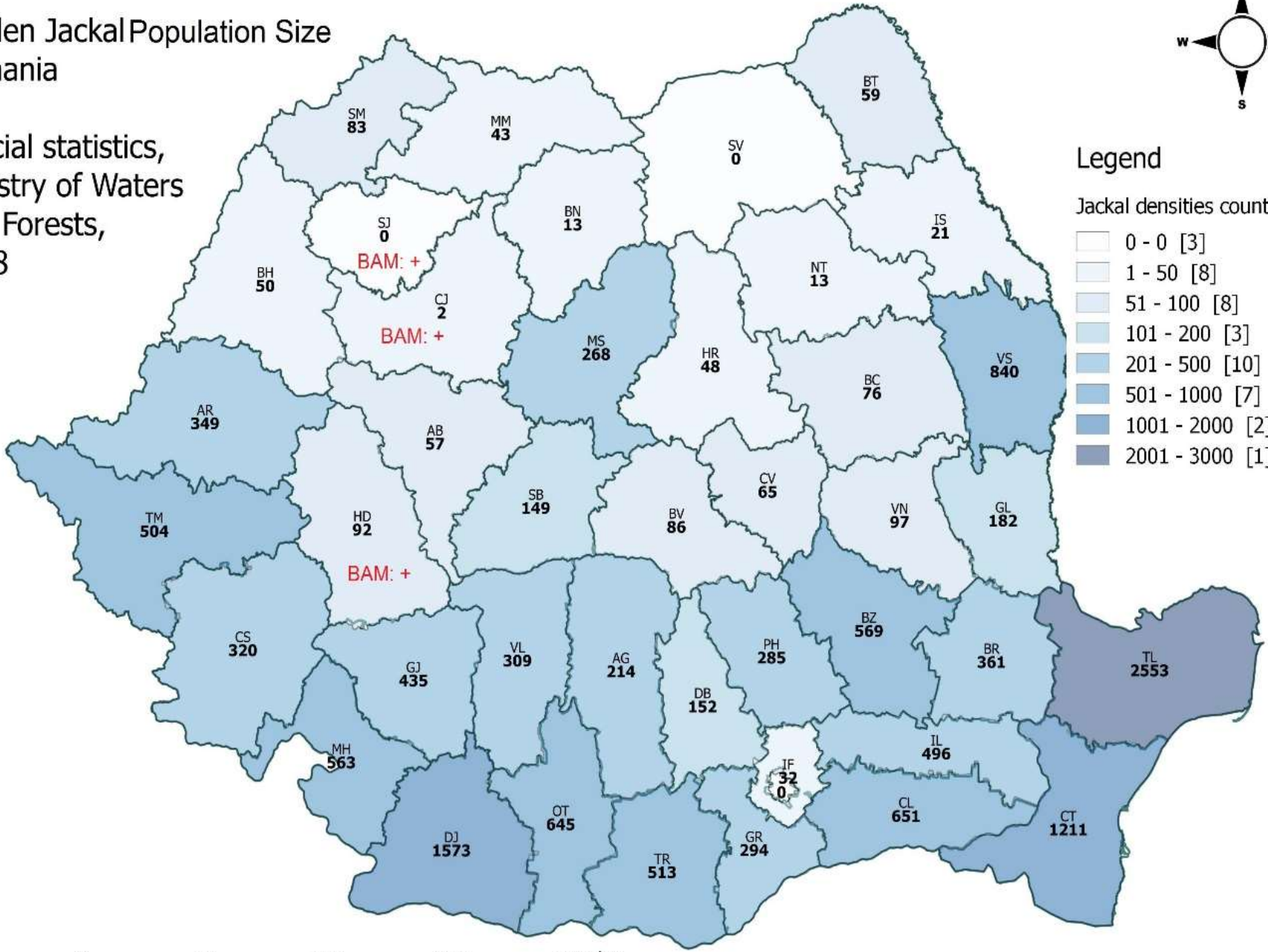
Official statistics,  
Ministry of Waters  
and Forests,  
2018



## Legend

Jackal densities counties [42]

- 0 - 0 [3]
- 1 - 50 [8]
- 51 - 100 [8]
- 101 - 200 [3]
- 201 - 500 [10]
- 501 - 1000 [7]
- 1001 - 2000 [2]
- 2001 - 3000 [1]







## National level monitoring - Issues

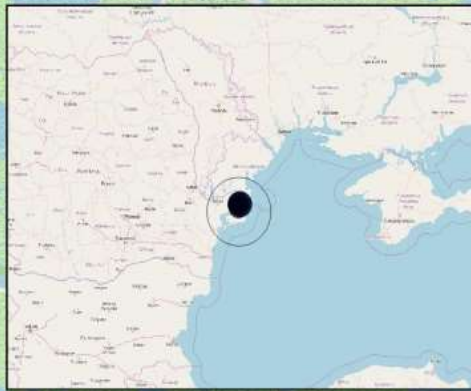
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- Huge discrepancies between the estimates regarding jackals from neighboring counties.
  - Annual growing rate: the highest difference is between 2008 (with a growth rate of -16%) and 2009 (with a growth rate of 42.5%) of 58.5%.
  - The average annual growth of the jackal population in Romania between 2006-2018 is 19.3%.
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## Local example of standardised monitoring

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- Monitoring of golden jackals in the lower Danube Delta Biosphere Reserve, in Crisan-Caraorman area
  - 2012 – 2015 – 2018
  - BAM
  - Camera trapping
  - Interviews with locals, authorities
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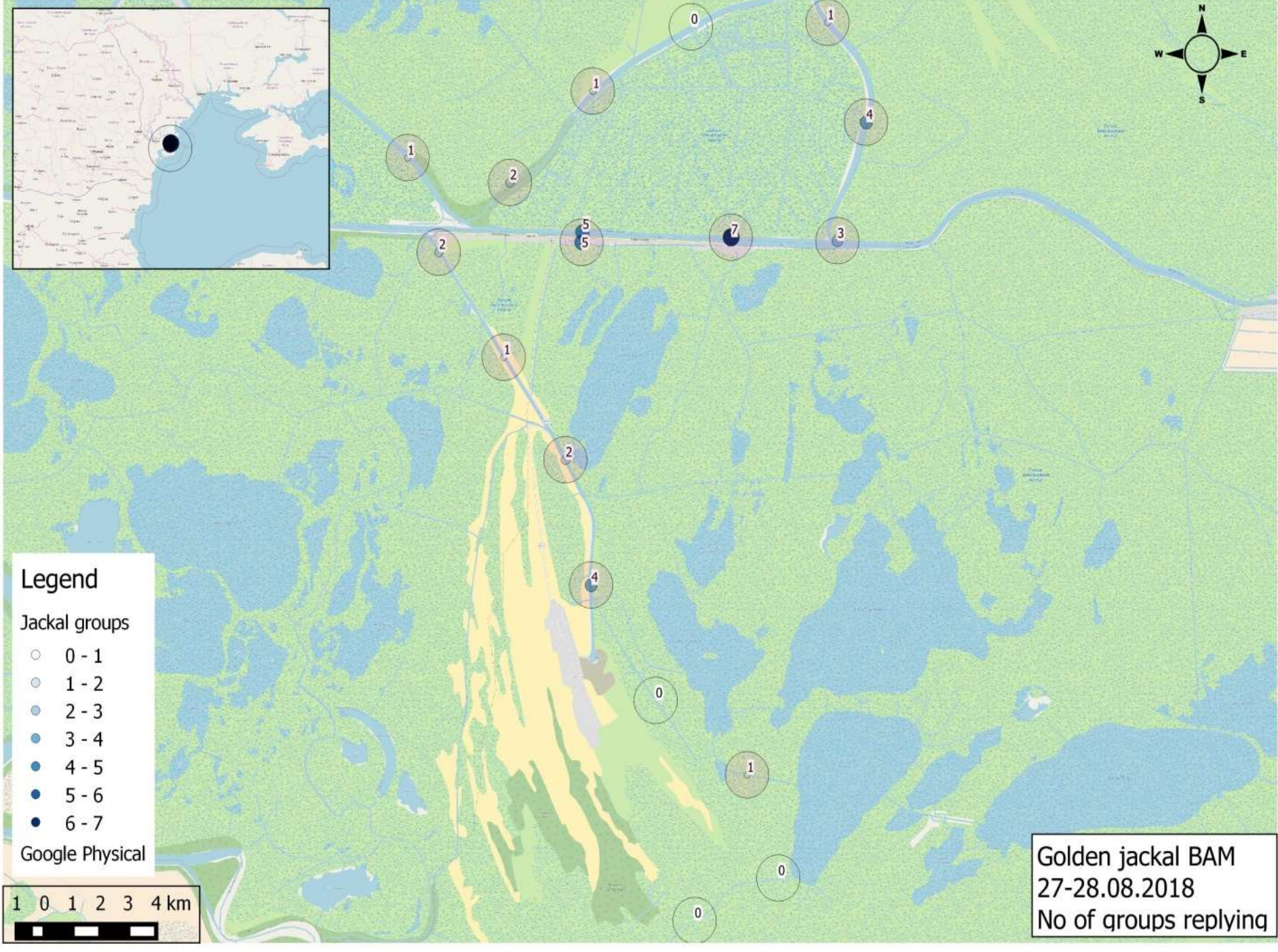


**Legend**

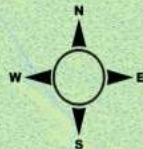
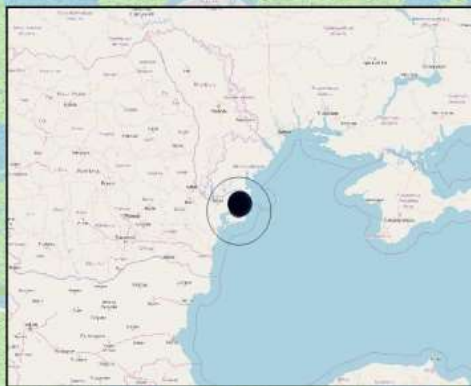
Jackal groups

- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- 4 - 5
- 5 - 6
- 6 - 7

Google Physical



Golden jackal BAM  
27-28.08.2018  
No of groups replying

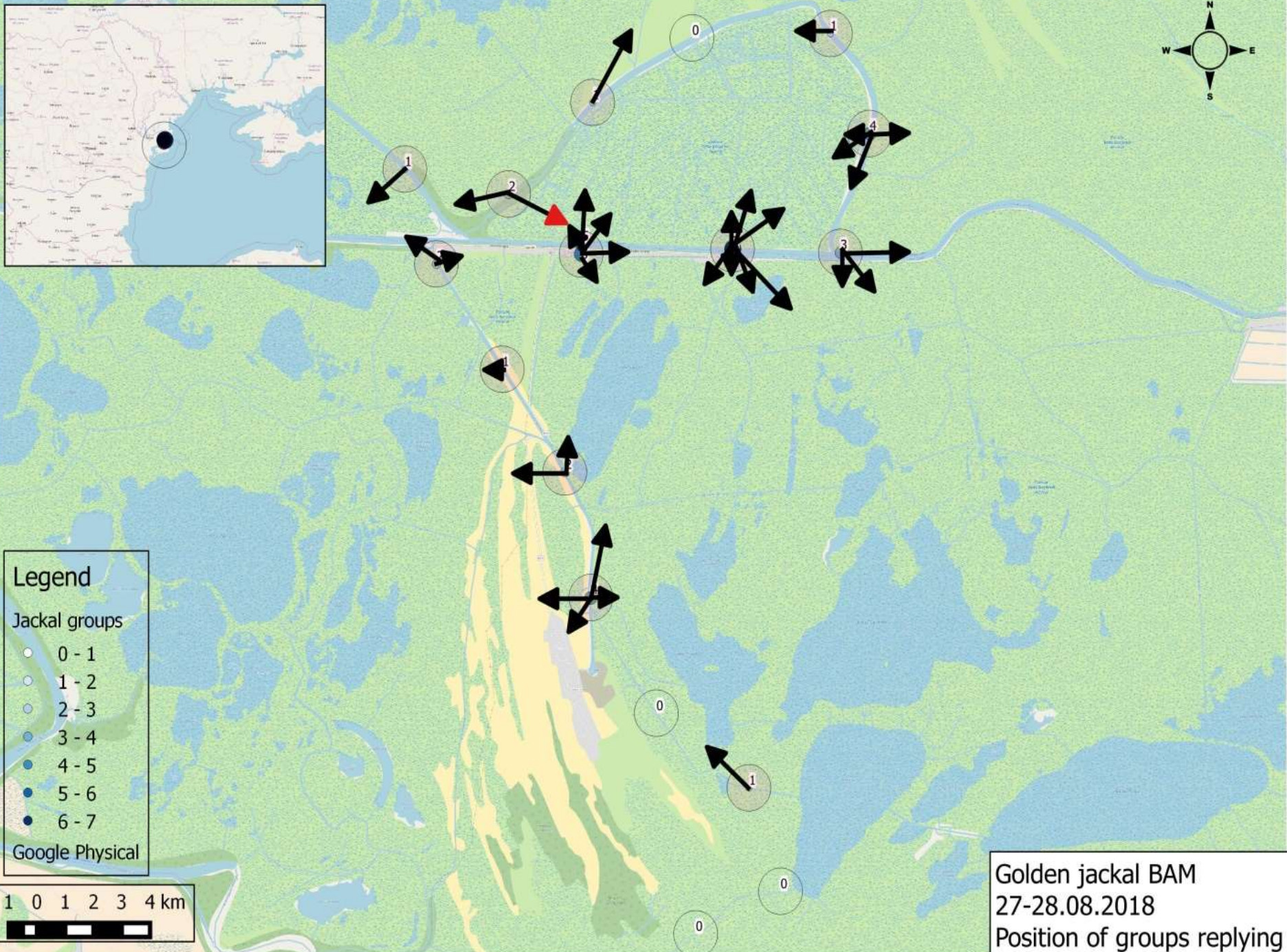
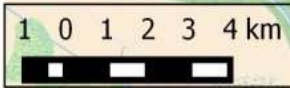


**Legend**

Jackal groups

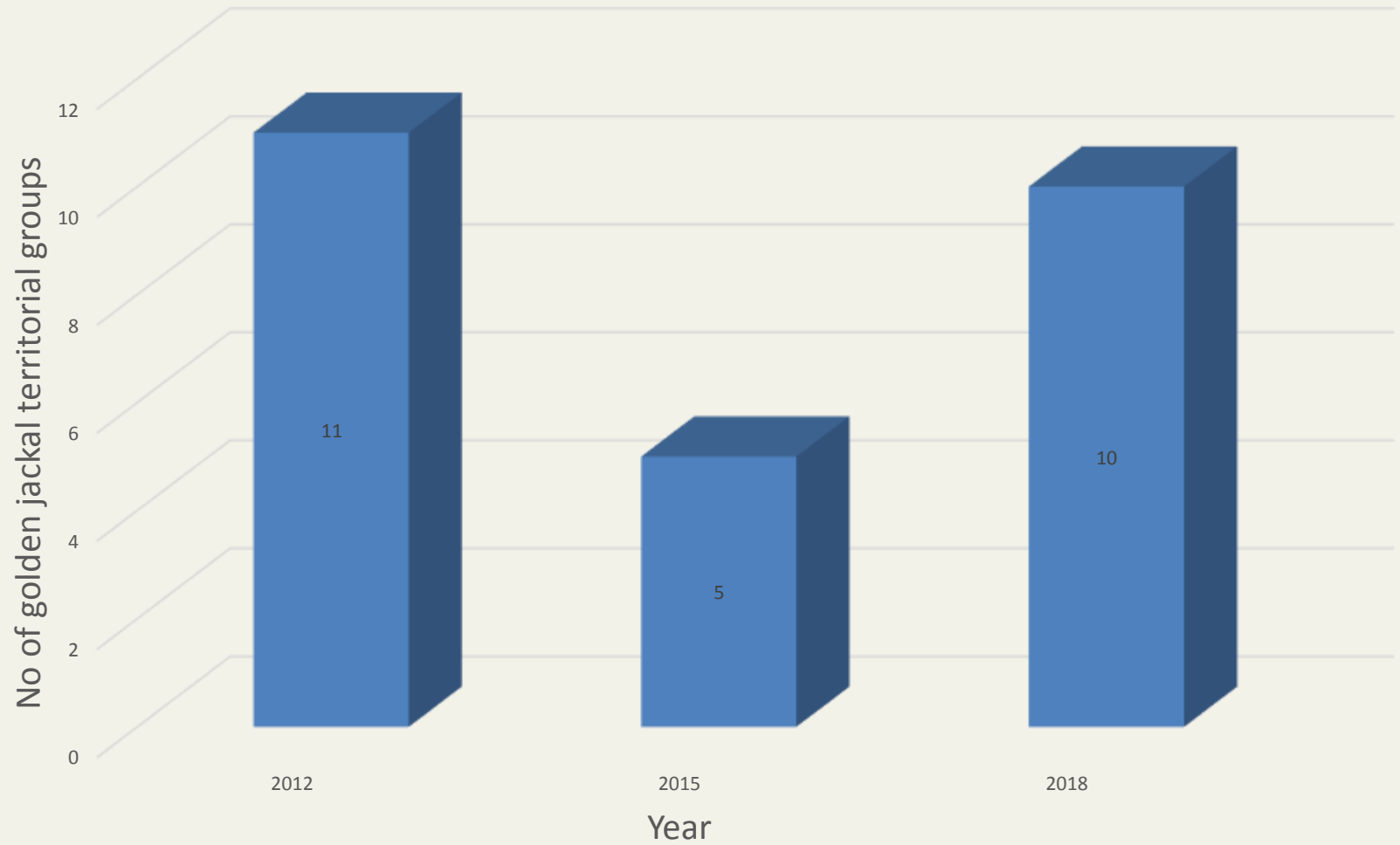
- 0 - 1
- 1 - 2
- 2 - 3
- 3 - 4
- 4 - 5
- 5 - 6
- 6 - 7

Google Physical



Golden jackal BAM  
27-28.08.2018  
Position of groups replying

## Dynamics of the golden jackal groups in Crisan-Caraorman area, DDR



## Results

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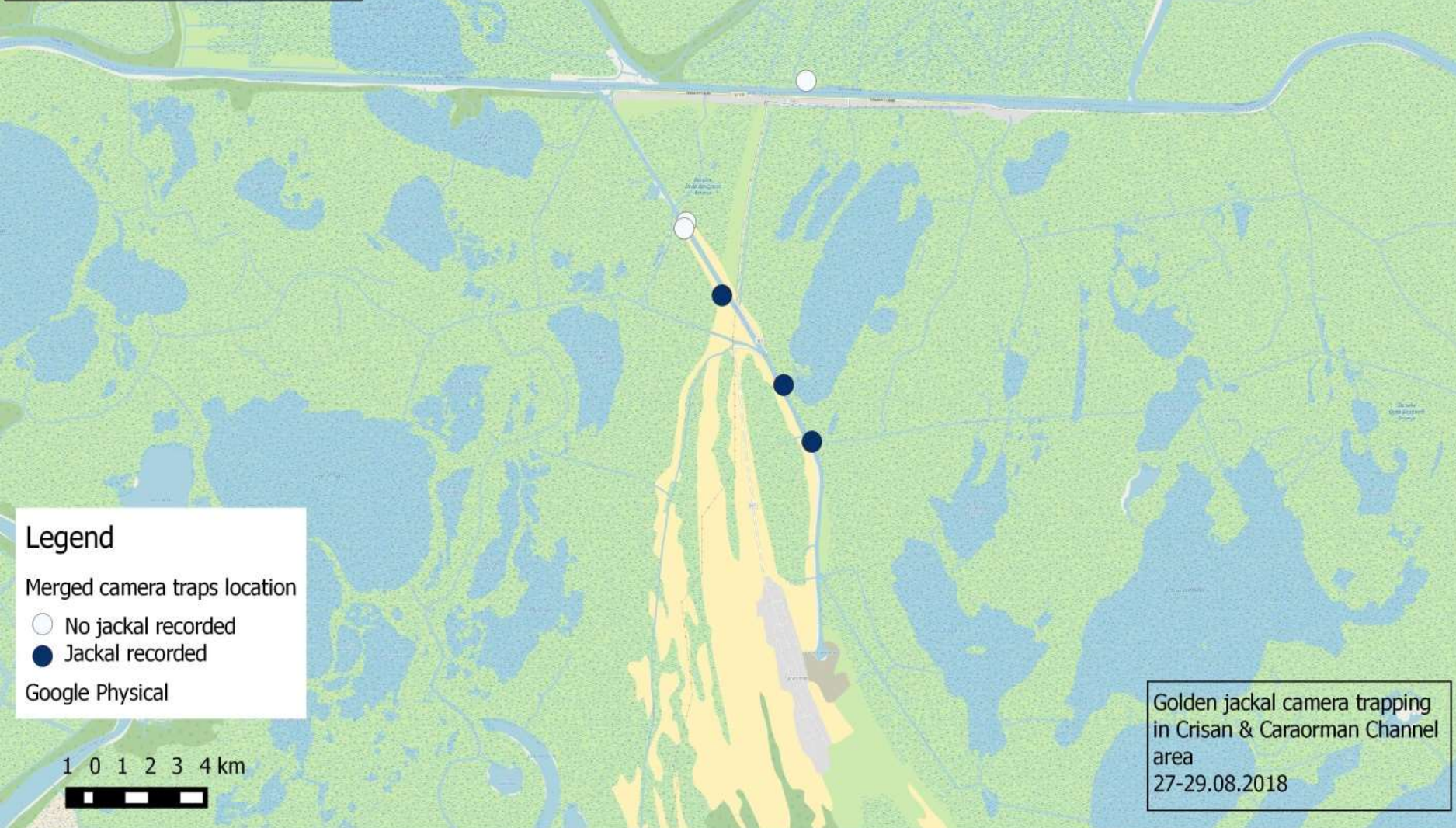
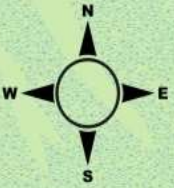
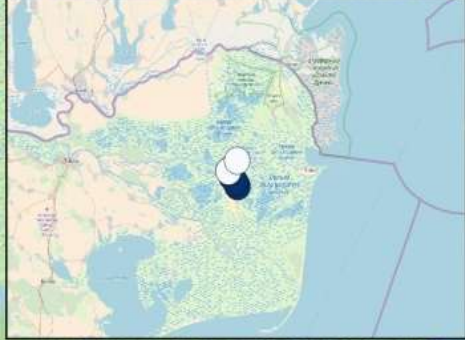
Every 3 years monitoring in Crisan-Caraorman area:

- 2012: 11 jackal groups → 2.2 territorial groups/10 km<sup>2</sup>
  - 2015: 5 jackal groups → 1 territorial group/ 10 km<sup>2</sup>
  - 2018: 10 jackal groups → 1.6 groups/ 10 km<sup>2</sup>
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## Results (2018)

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- Response rate: 76% (13 out of 17 stations)
  - Crisan village –Old Danube area (2018): 22-23 groups → 2.7-2.8 territorial groups/ 10 km<sup>2</sup>.
  - The highest local density: 7 territorial groups/ 10 km<sup>2</sup> (aprox. 2.1 individuals/ km<sup>2</sup>)
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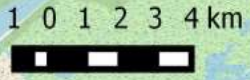


**Legend**

Merged camera traps location

- No jackal recorded
- Jackal recorded

Google Physical



Golden jackal camera trapping  
in Crisan & Caraorman Channel  
area  
27-29.08.2018



## Standardized monitoring – some principles

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- **What to monitor?** – setting conservation targets for monitoring (species or ecosystems, qualitative vs. quantitative)
  - **How to monitor?** – designing monitoring programmes (same methods applied in a harmonized way, protocols)
  - **When to monitor?** – selecting the same (adequate) periods
  - **Data management and analysis** – storing and managing field data
  - **Practical considerations** – sufficient and adequate trained staff, feasible time frame, workplan, adequate budget
  - **Communication and dissemination** of results
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## What Harmonised LC monitoring should mean?

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TBD....:

- We need to agree on principles, minimum vs. optimum standards
- We need collective action, from local → national → Carpathian level
- We need to share efforts, knowledge, resources, etc.

We basically need:

- Agreements at all levels
  - Harmonised Carpathian Action Plan/ Strategy, including a Monitoring Plan
  - Funding
  - **LC Population level management**
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Thank you very much!

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