



LIFE Great Bustard

SCIENTIFIC SYMPOSIUM

“PROGRESS IN THE RESEARCH AND CONSERVATION OF THE GREAT BUSTARD IN EUROPE”

18-21 September 2023, Bratislava, Slovakia

Experiences and best practice from Austria

Rainer Raab,

Hannah Böing, Eike Julius, Péter Spakovszky, Jochen Steindl & Manuel Wojta

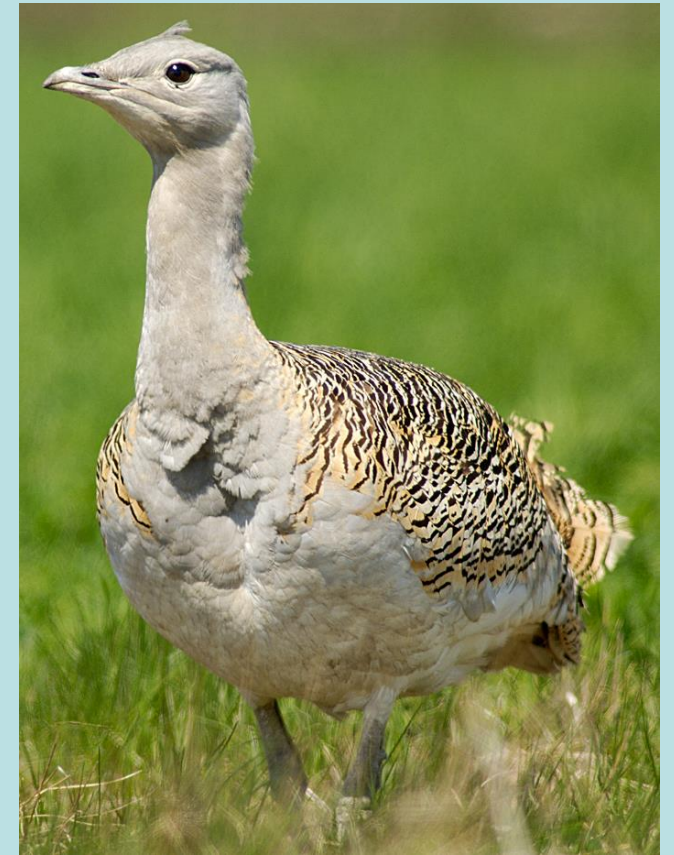


The aim of this part of the talk is to inform about conservation activities within LIFE Projects in Austria and to show some results from the Austrian LIFE Projects and other projects for the protection of the Great Bustard in the period 2018 to 2023.



Within the last 20 years in Austria, Slovakia and Hungary 6 LIFE Projects are being/have been done with LIFE support especially for the Great Bustard (*Otis tarda*):

1. LIFE04 NAT/HU/000109; OTISHU-Conservation of *Otis tarda* in Hungary (2004-2008)
2. LIFE05 NAT/SK/000115; Conservation of *Otis tarda* in Slovakia (2005-2009)
- 3. LIFE05 NAT/A/000077, Cross-border Protection of the Great Bustard in Austria (2005-2010)**
- 4. LIFE09 NAT/AT/000255, Cross-border Protection of the Great Bustard in Austria - continuation (2010-2015)**
- 5. LIFE15 NAT/AT/000834, LIFE Great Bustard - Cross-border protection of the Great Bustard in Central Europe (2016-2023)**
6. LIFE20 NAT/SK/001077, LIFE STEPPE on border (2022-2027)

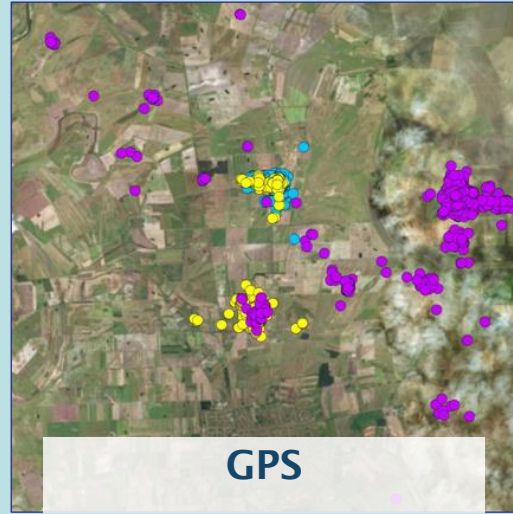


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30 years
of bringing
green ideas to LIFE

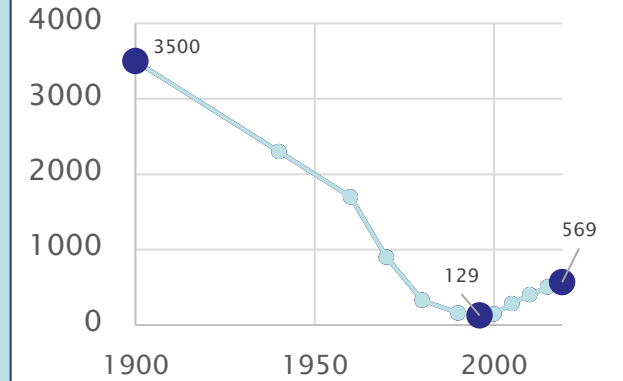


Actions

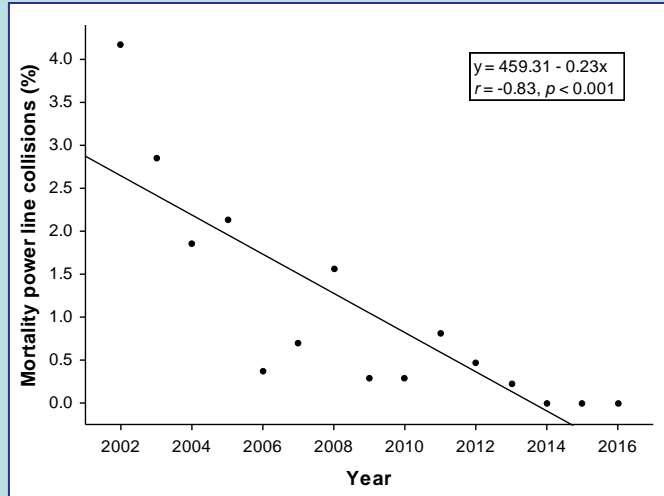


Population increase

Population 1900-2019



Decrease of collisions



Best practice



Cooperation with authorities, locals and science



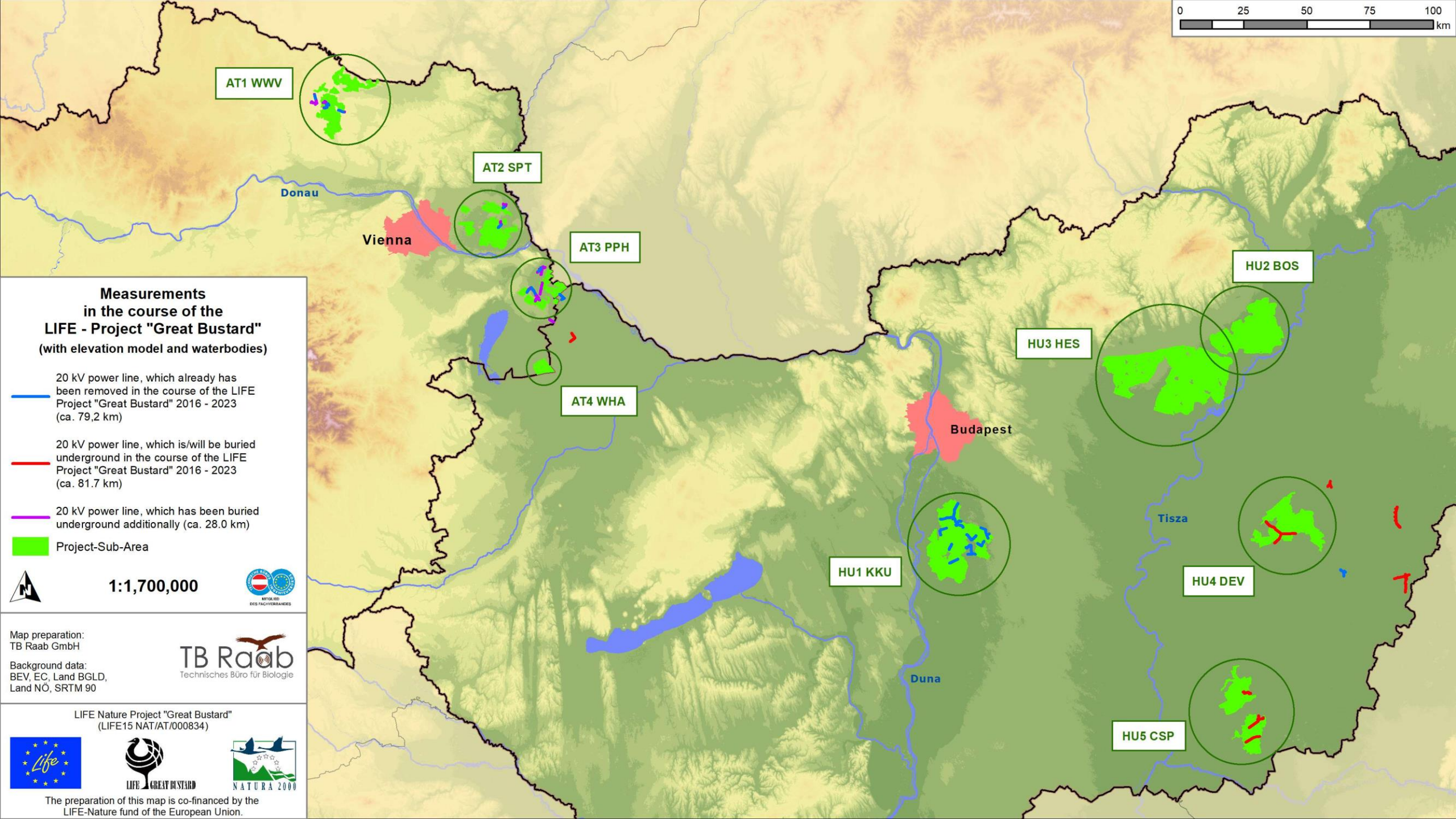
Utilization of and support by agri-environment scheme



Job creation



Touristic value



**Measurements
in the course of the
LIFE - Project "Great Bustard"**
(with elevation model and waterbodies)

- 20 kV power line, which already has been removed in the course of the LIFE Project "Great Bustard" 2016 - 2023 (ca. 79,2 km)
- 20 kV power line, which is/will be buried underground in the course of the LIFE Project "Great Bustard" 2016 - 2023 (ca. 81,7 km)
- 20 kV power line, which has been buried underground additionally (ca. 28,0 km)
- Project-Sub-Area

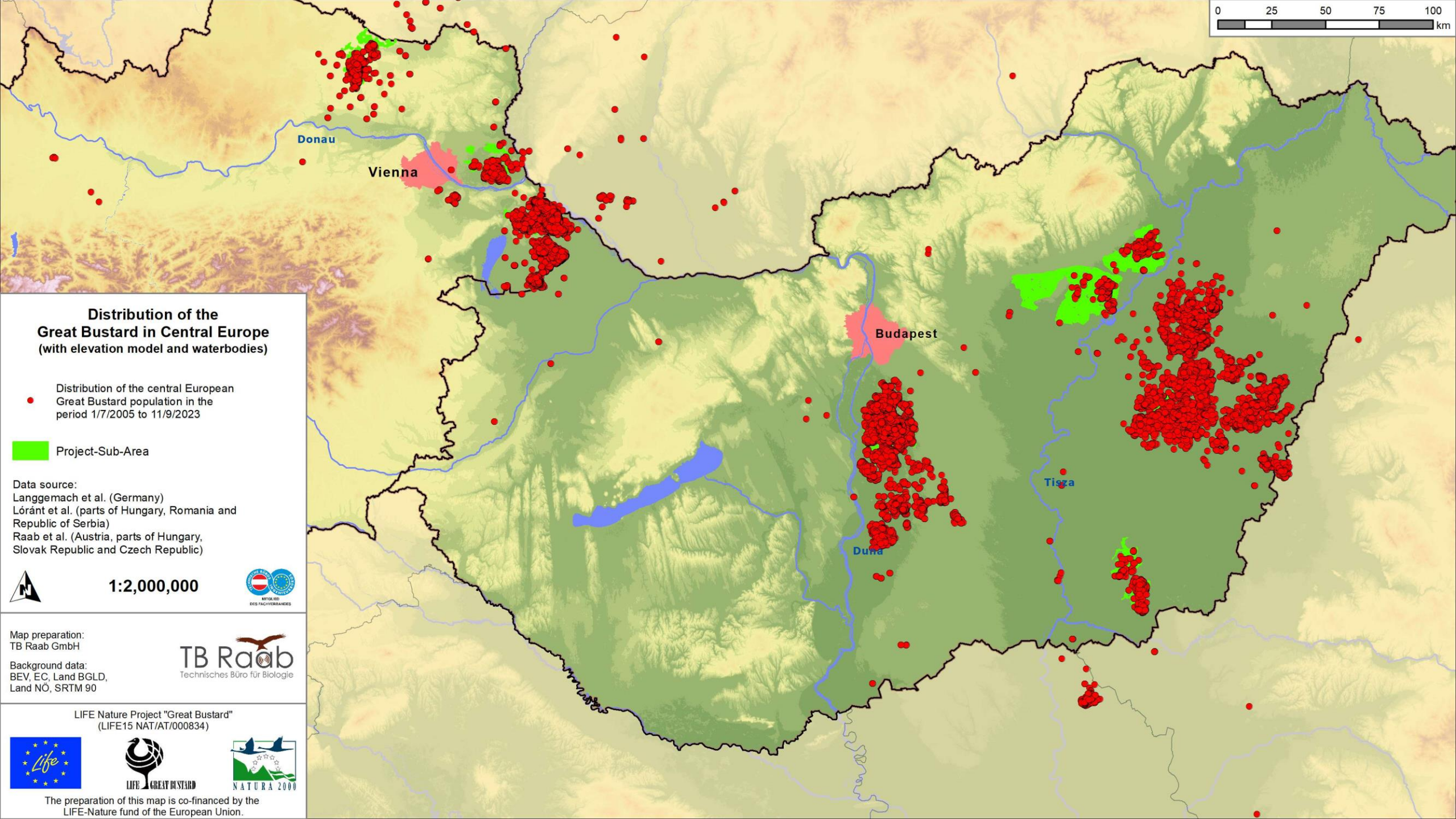
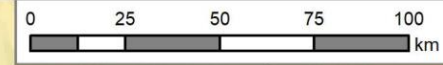
1:1,700,000

Map preparation:
TB Raab GmbH

Background data:
BEV, EC, Land BGLD,
Land NO, SRTM 90

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Distribution of the Great Bustard in Central Europe (with elevation model and waterbodies)

● Distribution of the central European Great Bustard population in the period 1/7/2005 to 11/9/2023

■ Project-Sub-Area

Data source:
Langgemach et al. (Germany)
Lóránt et al. (parts of Hungary, Romania and Republic of Serbia)
Raab et al. (Austria, parts of Hungary, Slovak Republic and Czech Republic)

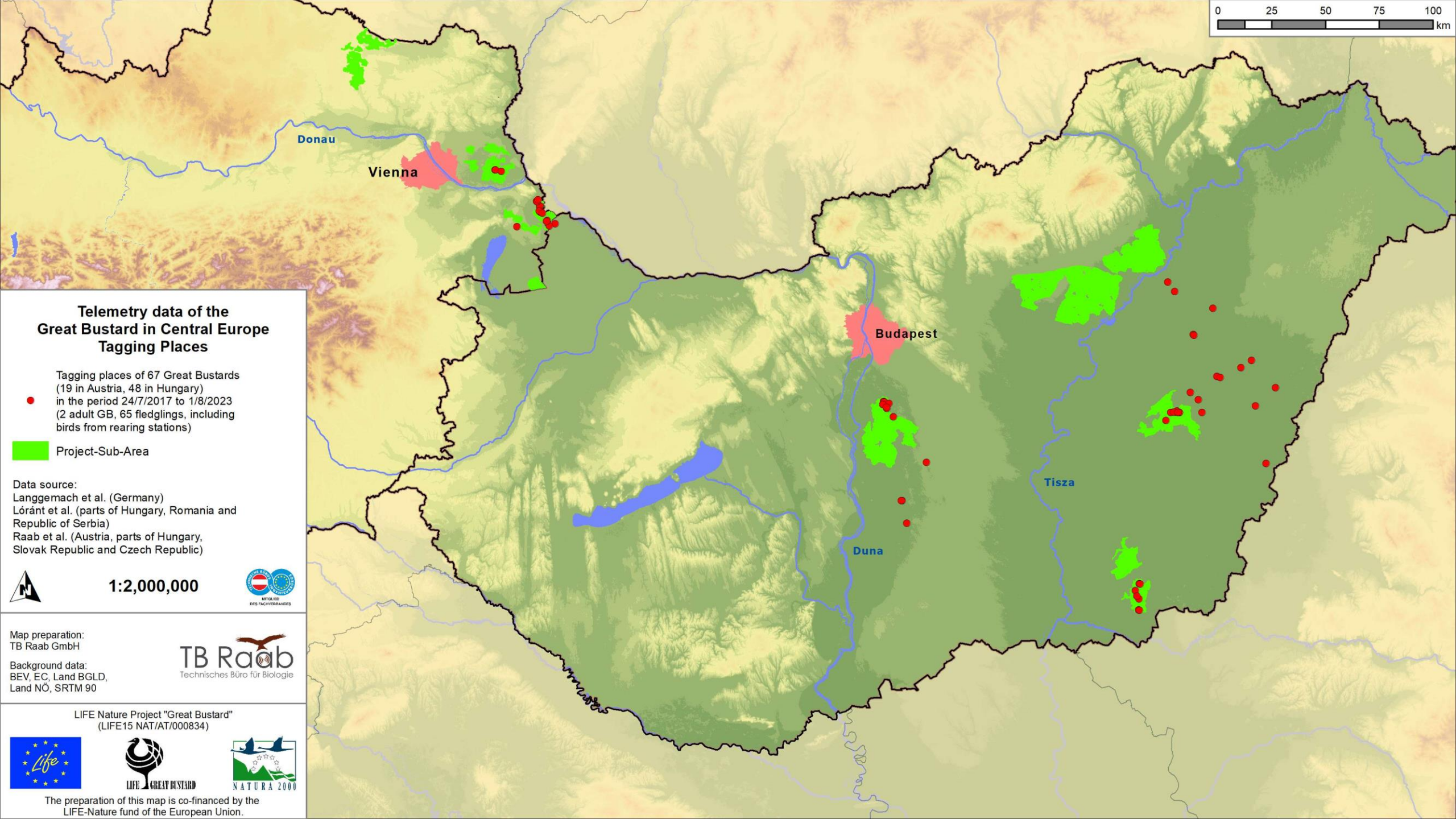
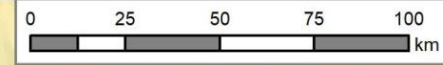
1:2,000,000

Map preparation:
TB Raab GmbH

Background data:
BEV, EC, Land BGLD,
Land NO, SRTM 90

LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)

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Telemetry data of the Great Bustard in Central Europe Tagging Places

Tagging places of 67 Great Bustards
(19 in Austria, 48 in Hungary)
in the period 24/7/2017 to 1/8/2023
(2 adult GB, 65 fledglings, including
birds from rearing stations)



 Project-Sub-Area

Data source:
Langgemach et al. (Germany)
Lóránt et al. (parts of Hungary, Romania and
Republic of Serbia)
Raab et al. (Austria, parts of Hungary,
Slovak Republic and Czech Republic)



1:2,000,000



Map preparation:
TB Raab GmbH

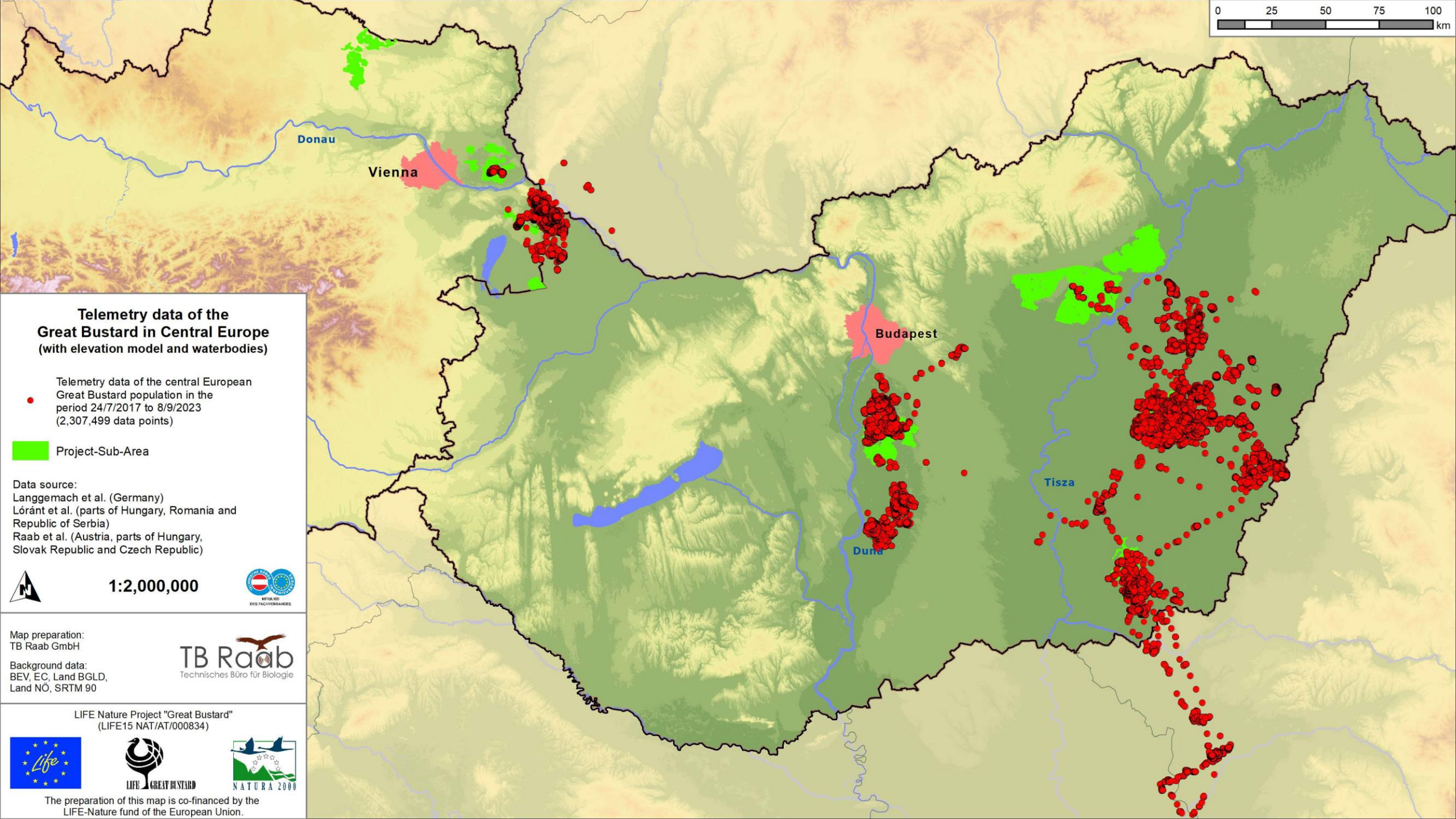
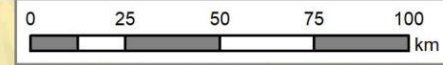
Background data:
BEV, EC, Land BGLD,
Land NO, SRTM 90



LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Telemetry data of the Great Bustard in Central Europe (with elevation model and waterbodies)

● Telemetry data of the central European Great Bustard population in the period 24/7/2017 to 8/9/2023 (2,307,499 data points)

■ Project-Sub-Area

Data source:
Langgemach et al. (Germany)
Lóránt et al. (parts of Hungary, Romania and Republic of Serbia)
Raab et al. (Austria, parts of Hungary, Slovak Republic and Czech Republic)

1:2,000,000

Map preparation:
TB Raab GmbH

LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.

Flight movements of the West-Pannonian Great Bustard population

in the period 1/7/2005 to 11/9/2023

- Distribution of Great Bustard
- Flight movements of Great Bustard

SPAs for the West-Pannonian
Population of Great Bustard:
Austria (45,208 ha), Hungary
(13,096 ha), Slovak Republic
(4,163 ha)



1:800,000



Map preparation:
TB Raab GmbH

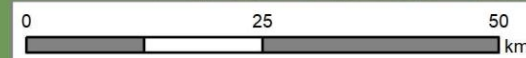
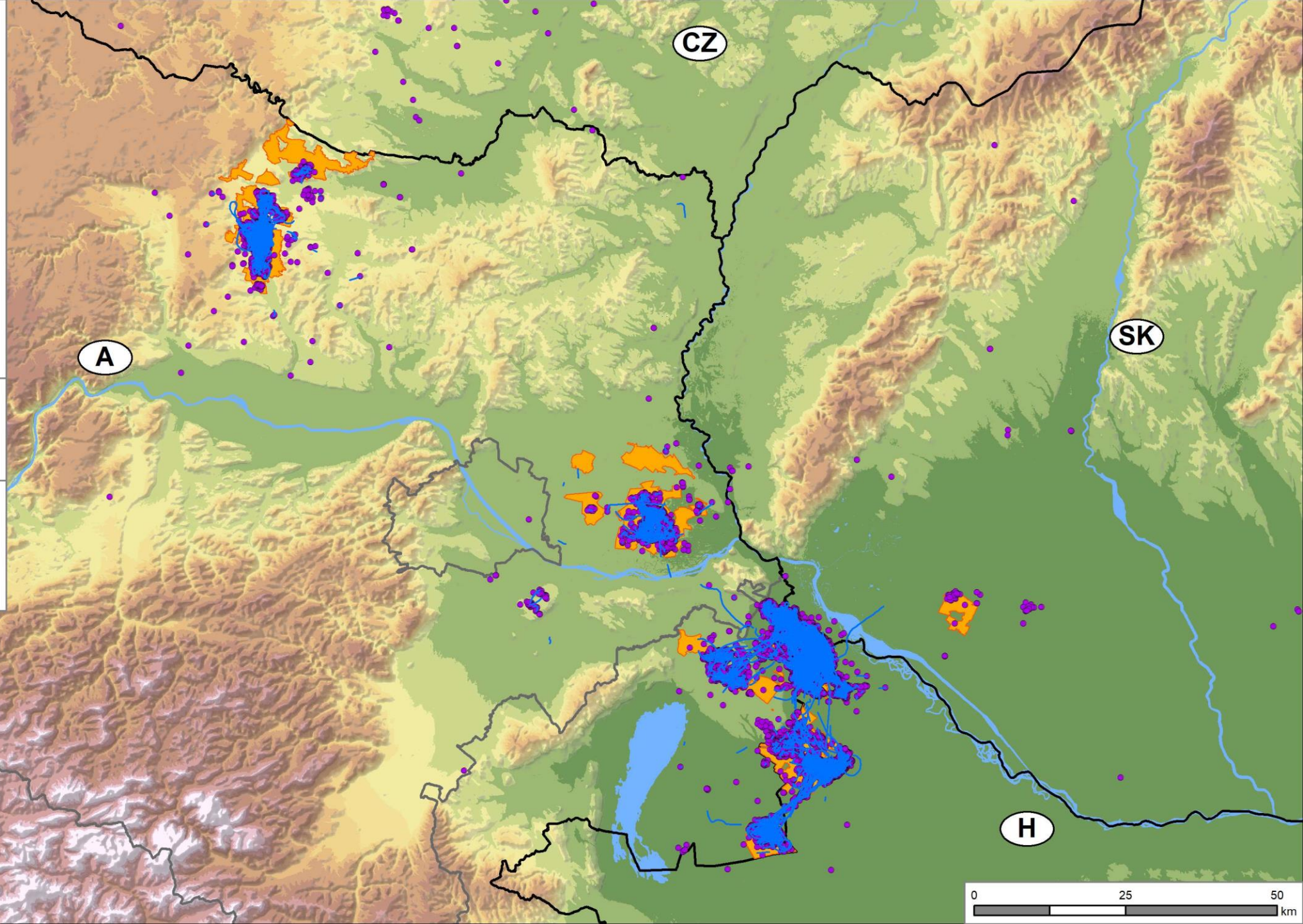
TB Raab
Technisches Büro für Biologie

Background data:
BEV, EC, Land BGLD,
Land NO, SRTM 90

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Action AT D.6
Monitoring - GIS elaboration of the
Great Bustard data
in AT1 WWV and AT2 SPT
in the period 16/7/2005 to 11/9/2023

- Distribution of Great Bustard in the period 25/7/2016 - 11/9/2023 (4,311 data sets)
- Distribution of Great Bustard in the period 16/7/2005 to 24/7/2016 (20,437 data sets)

■ Project-Sub-Areas
AT1 WWV and AT2 SPT



Map preparation:
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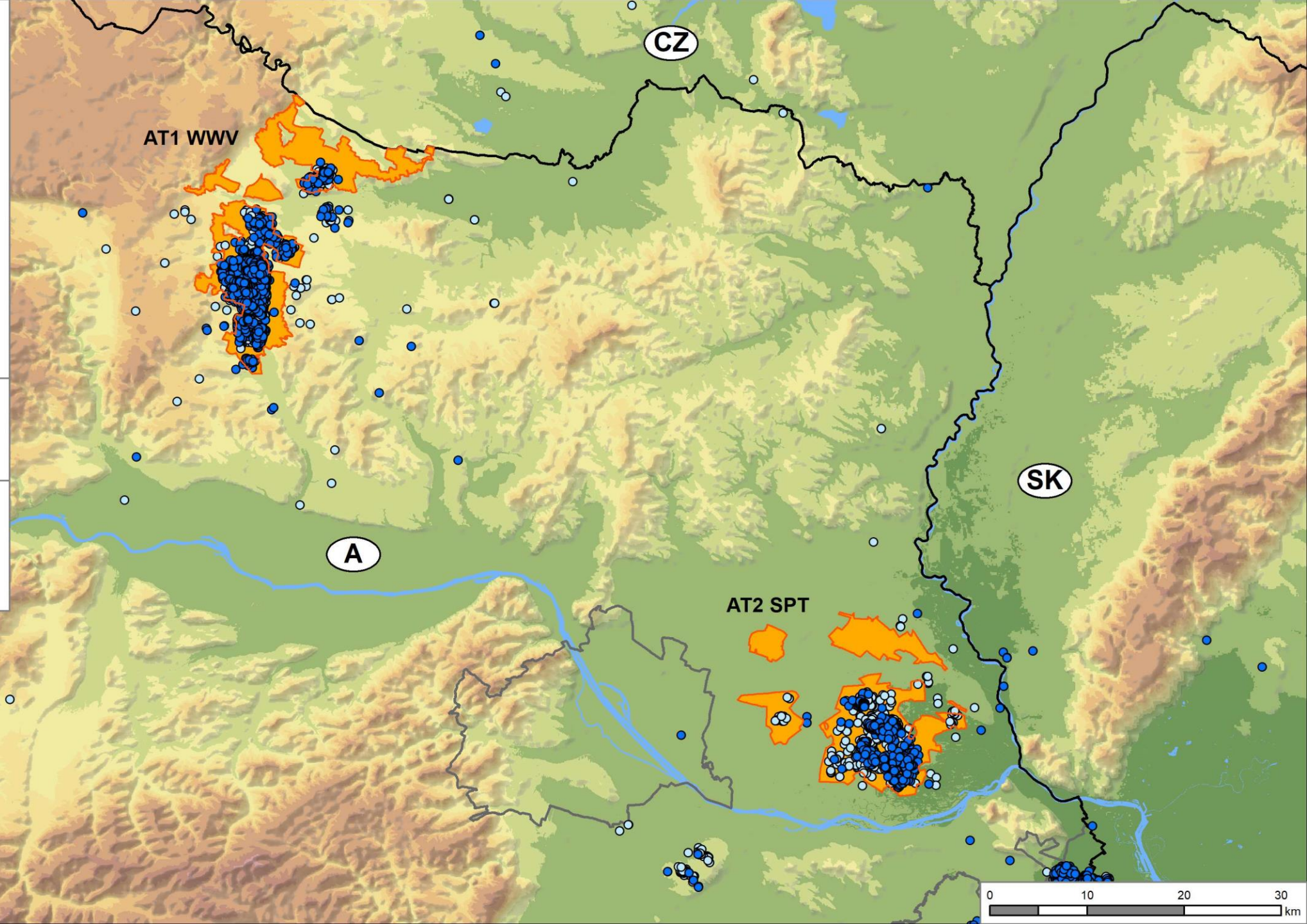


Background data:
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Land NO, SRTM 90

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Overview Great Bustard observations and telemetry data and SPAs in Austria (and the neighbouring areas)

● Great Bustard observations and telemetry data in the period 01/01/2018 to 14/06/2023

■ Project-Sub-Area = Special Protection Area (SPA)

■ Special Protection Area (SPA)

— federal state border

— national border

1:1,000,000



Map preparation:
TB Raab GmbH

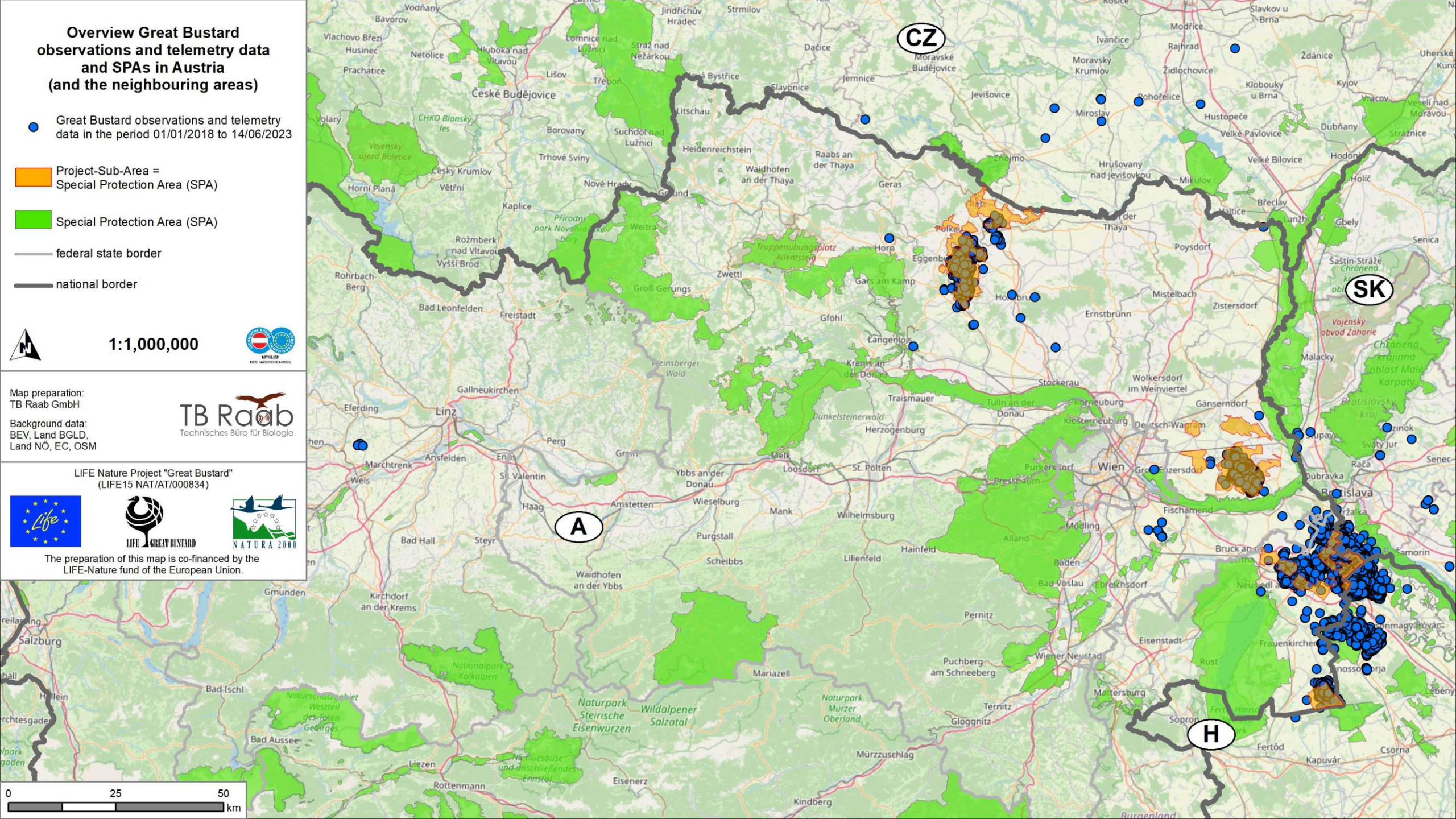


Background data:
BEV, Land BGLD,
Land NÖ, EC, OSM

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Great Bustard observations and telemetry data and SPAs in Austria (and the neighbouring areas)

● Great Bustard observations and telemetry data in the period 01/01/2018 to 14/06/2023

■ Project-Sub-Area = Special Protection Area (SPA)

■ Special Protection Area (SPA)

— federal state border

— national border



1:400,000



Map preparation:
TB Raab GmbH

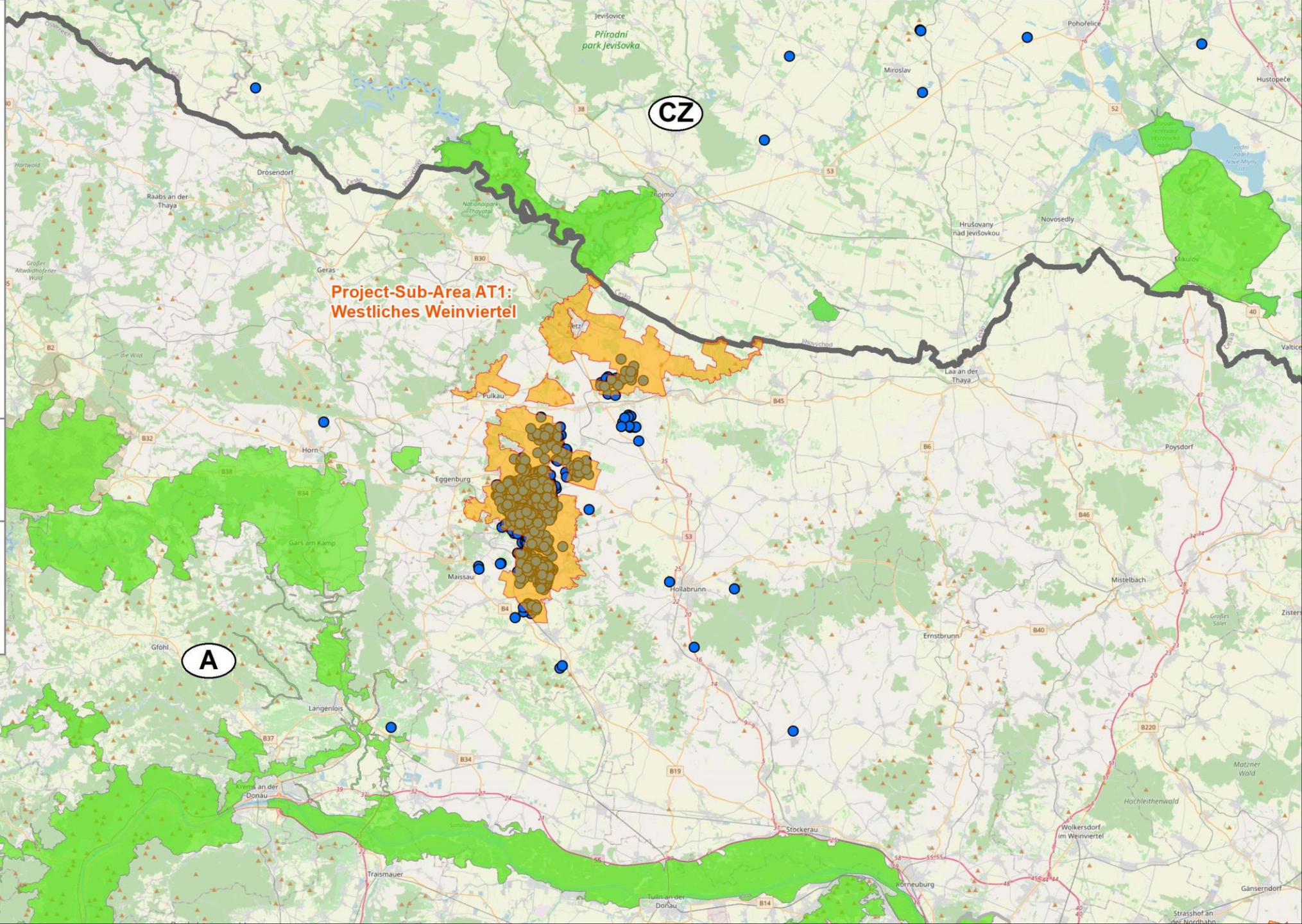


Background data:
BEV, Land BGLD,
Land NÖ, EC, OSM

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Great Bustard observations and telemetry data and SPAs in Austria (and the neighbouring areas)

● Great Bustard observations and telemetry data in the period 01/01/2018 to 14/06/2023

■ Project-Sub-Area = Special Protection Area (SPA)

■ Special Protection Area (SPA)

— federal state border

— national border

1:400,000



Map preparation: TB Raab GmbH

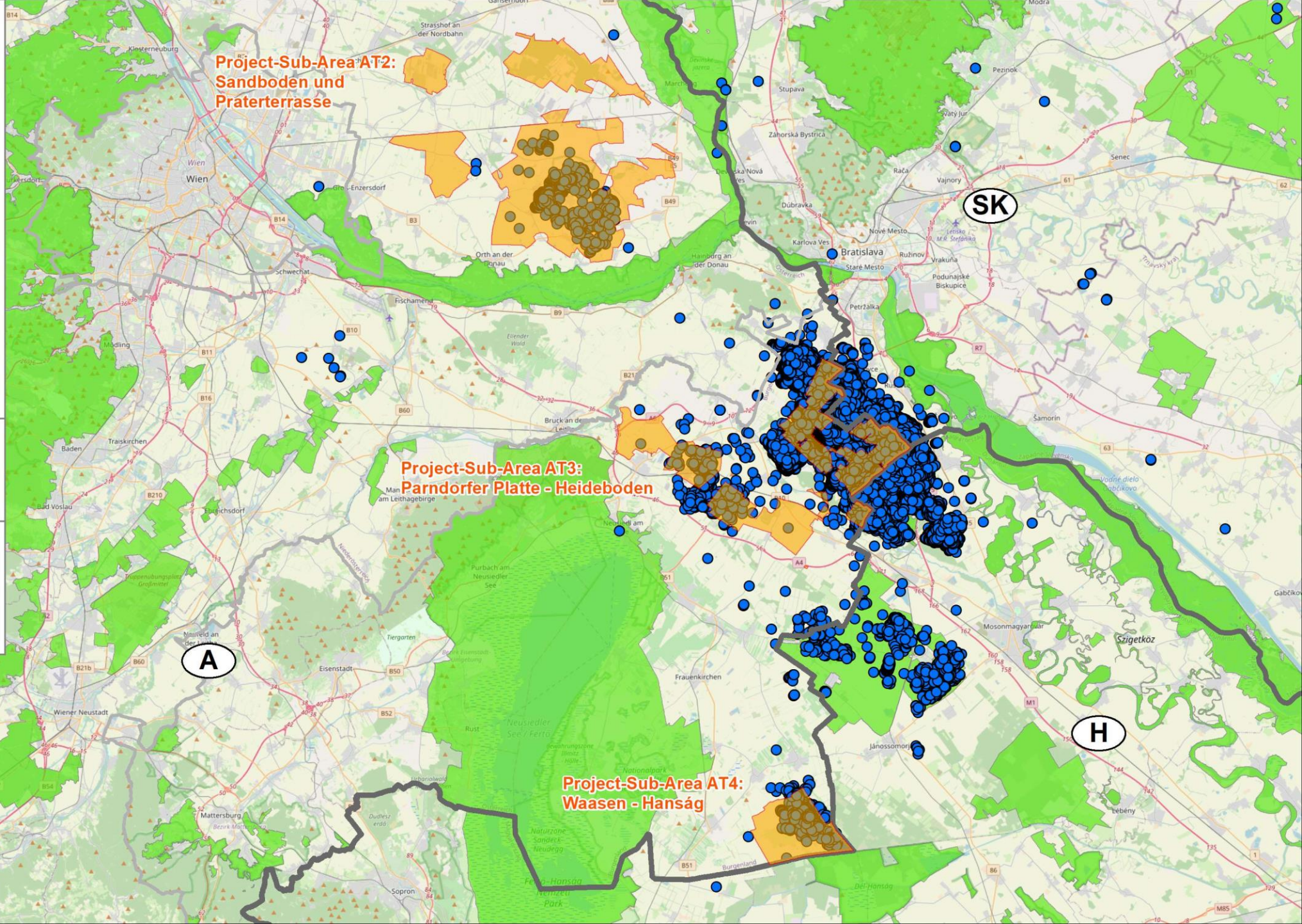


Background data: BEV, Land BGLD, Land NÖ, EC, OSM

LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.





Overview Project-Sub-Area "Parndorfer Platte - Heideboden"

● Distribution of Great Bustard
in the period 1/7/2005 to 7/8/2023

Project-Sub-Area
AT3 Parndorfer Platte - Heideboden
8,985.21 ha (AT3 PPH)
= SPA "Parndorfer Platte - Heideboden"
(AT1125129)

— border project community

— community border



1:180,000



Map preparation:
TB Raab GmbH

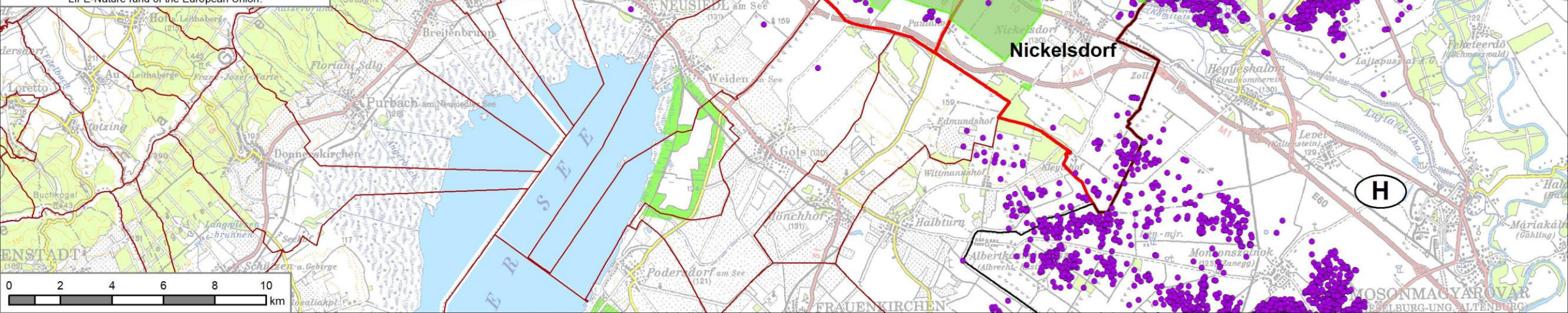
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Distribution of Great Bustard in the Project-Sub-Area "Parndorfer Platte - Heideboden"

in the period 1/7/2005 to 7/8/2023
(Individuals)

- 1
- 2 - 5
- 6 - 25
- 26 - 75
- 76 - 444

● 25/7/2016 - 7/8/2023
(10,023 data sets)

○ 1/7/2005 - 24/7/2016
(22,917 data sets)

Project-Sub-Area
AT3 Parndorfer Platte - Heideboden
8,985.21 ha (AT3 PPH)

— community border



1:125,000



Map preparation:
TB Raab GmbH

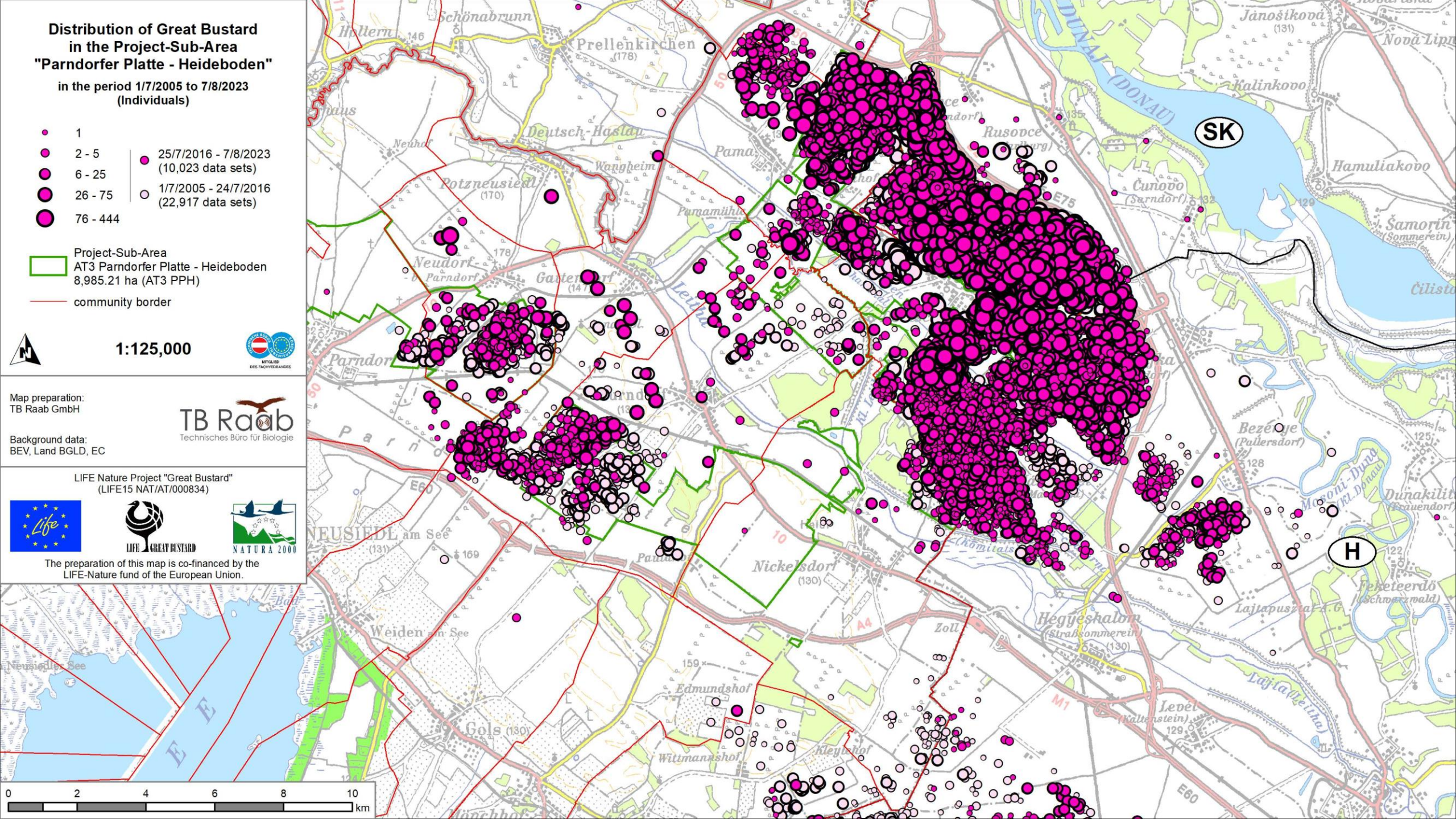
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

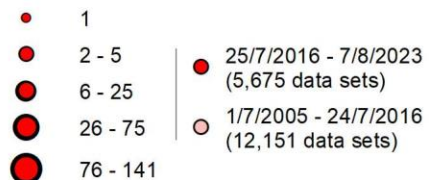


The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Distribution of Great Bustard in the Project-Sub-Area "Parndorfer Platte - Heideboden"

in the period 1/7/2005 to 7/8/2023
(adult and immature males)



Project-Sub-Area
AT3 Parndorfer Platte - Heideboden
8,985.21 ha (AT3 PPH)

community border



1:125,000



Map preparation:
TB Raab GmbH

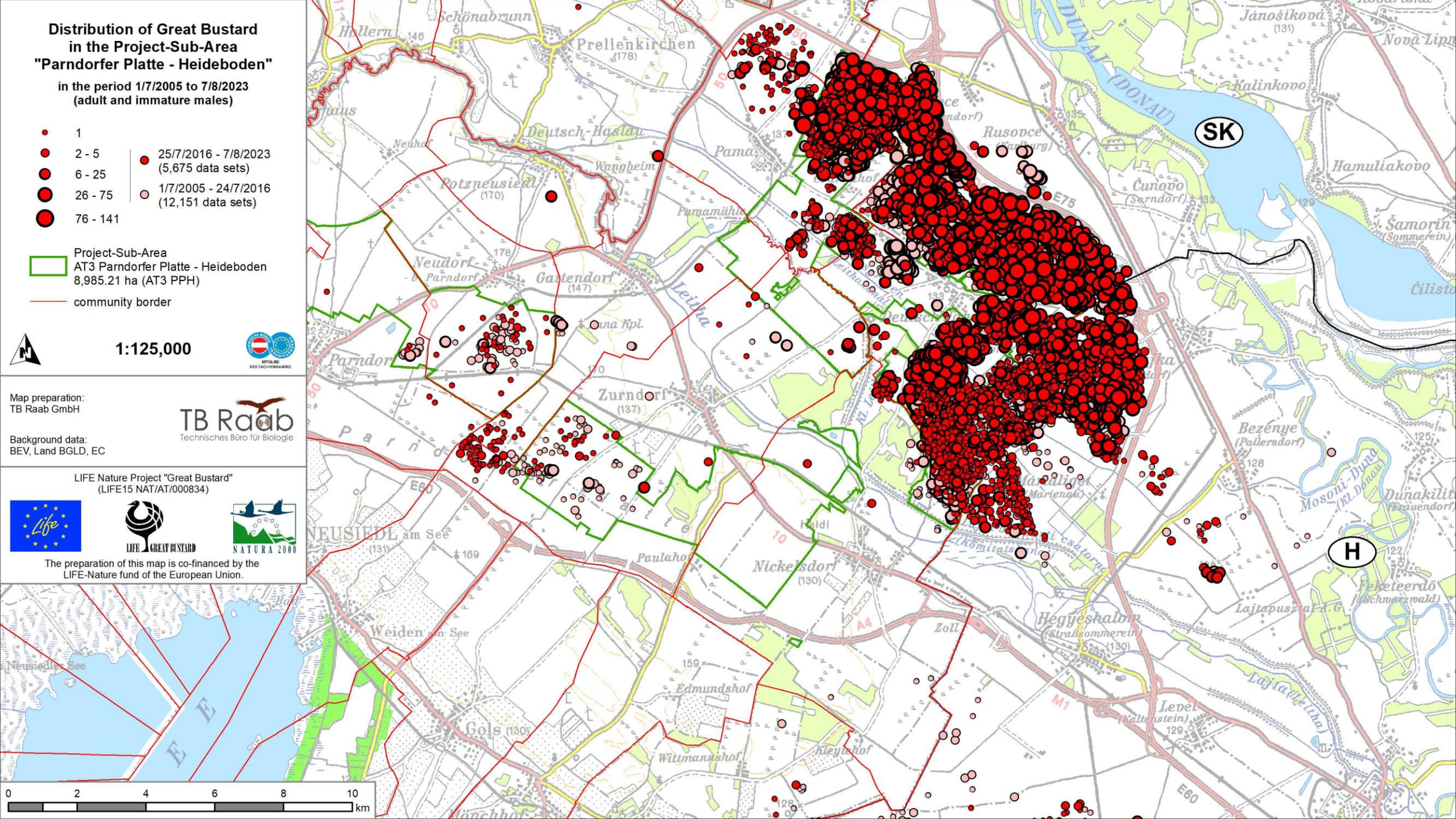
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



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Distribution of Great Bustard in the Project-Sub-Area "Parndorfer Platte - Heideboden"

in the period 1/7/2005 to 7/8/2023
(adult and immature males)

Display:

- 1
- 2
- 3
- 4 - 6
- 7 - 45

Project-Sub-Area
AT3 Parndorfer Platte - Heideboden
8,985.21 ha (AT3 PPH)

community border



1:125,000



Map preparation:
TB Raab GmbH

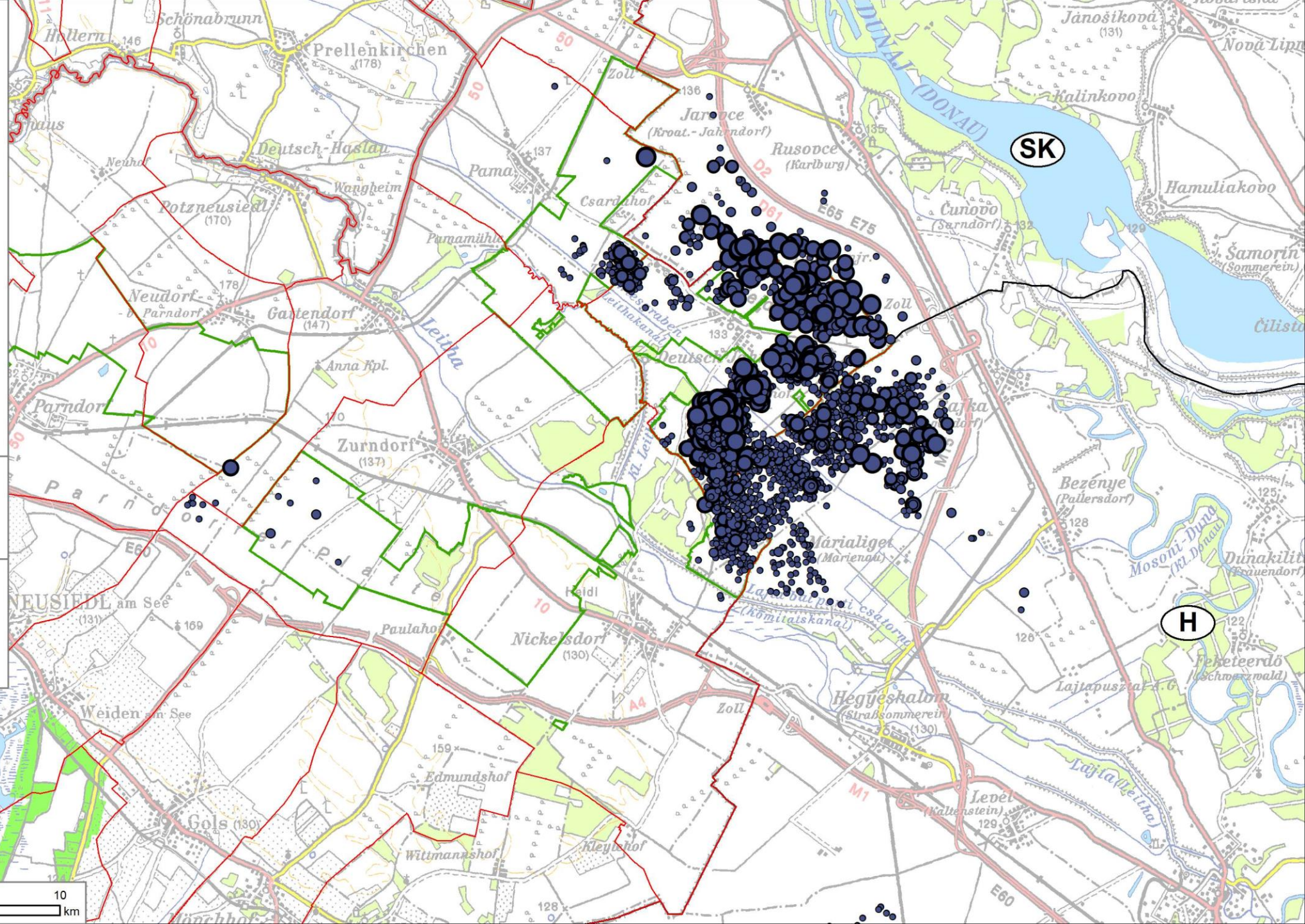
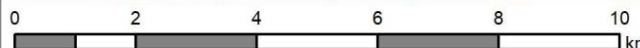
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

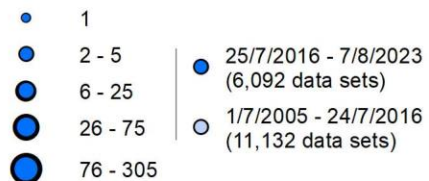


The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Distribution of Great Bustard in the Project-Sub-Area "Parndorfer Platte - Heideboden"

in the period 1/7/2005 to 7/8/2023
(females and juveniles)



Project-Sub-Area
AT3 Parndorfer Platte - Heideboden
8,985.21 ha (AT3 PPH)

— community border



1:125,000



Map preparation:
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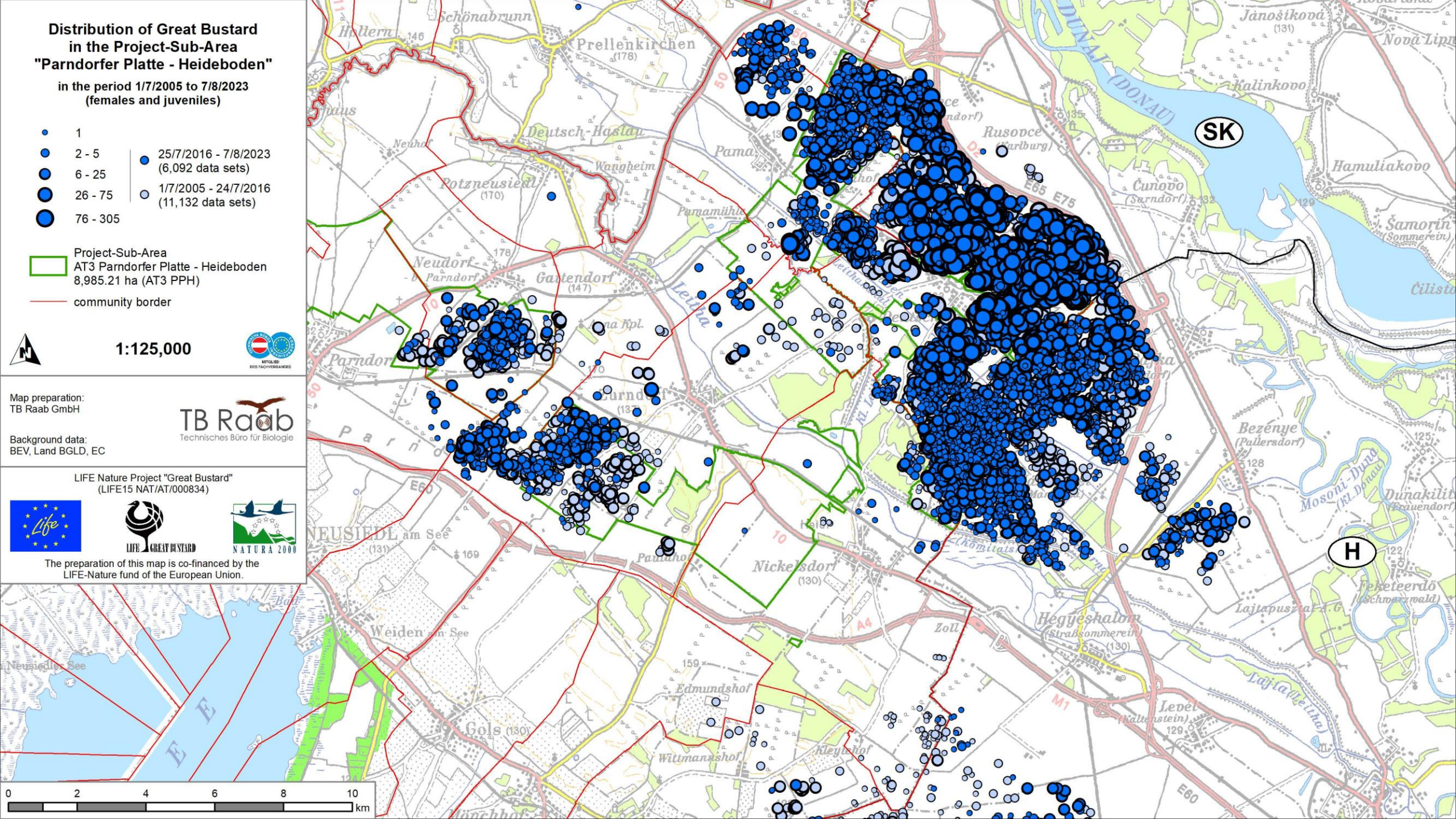


Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
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**Breeding places of Great Bustard
in the Project-Sub-Area
"Parndorfer Platte - Heideboden"**
in the period 1/7/2005 to 3/6/2022

- 2017 - 2022 ● sure breeding place
- 2006 - 2016 ● probable breeding place

- Project-Sub-Area
AT3 Parndorfer Platte - Heideboden
8,985.21 ha (AT3 PPH)
- community border

1:125,000

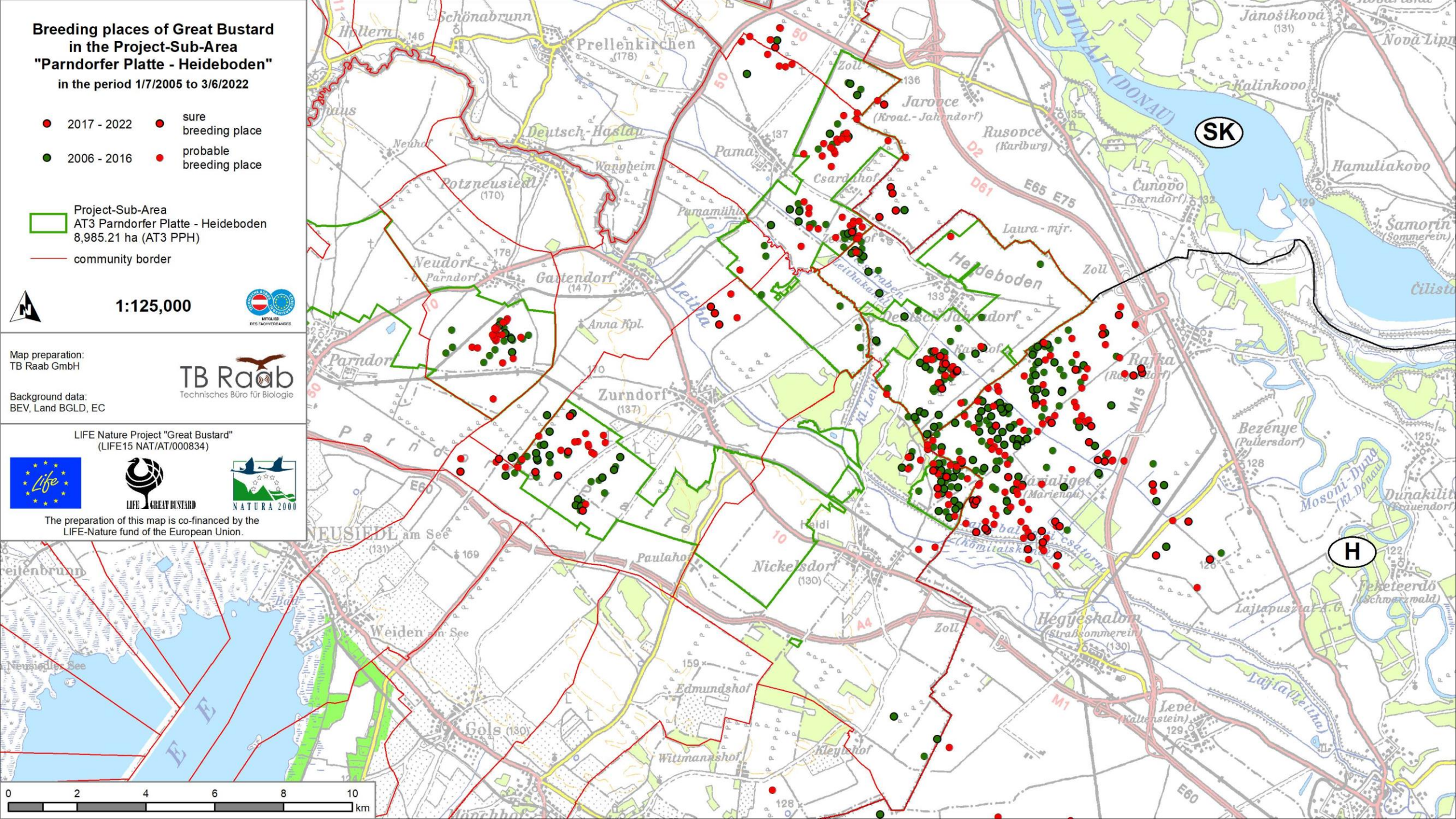
Map preparation:
TB Raab GmbH

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Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



**Flight movements of Great Bustard
in the Project-Sub-Area
"Parndorfer Platte - Heideboden"**
in the period 1/7/2005 to 7/8/2023

- Distribution of Great Bustard
- Flight movements of Great Bustard in the period 25/7/2016 - 7/8/2023 (1,732 data sets)
- Flight movements of Great Bustard in the period 1/7/2005 - 24/7/2016 (5,627 data sets)
- Project-Sub-Area AT3 Parndorfer Platte - Heideboden, 8,985.21 ha (AT3 PPH)
- community border

1:125,000

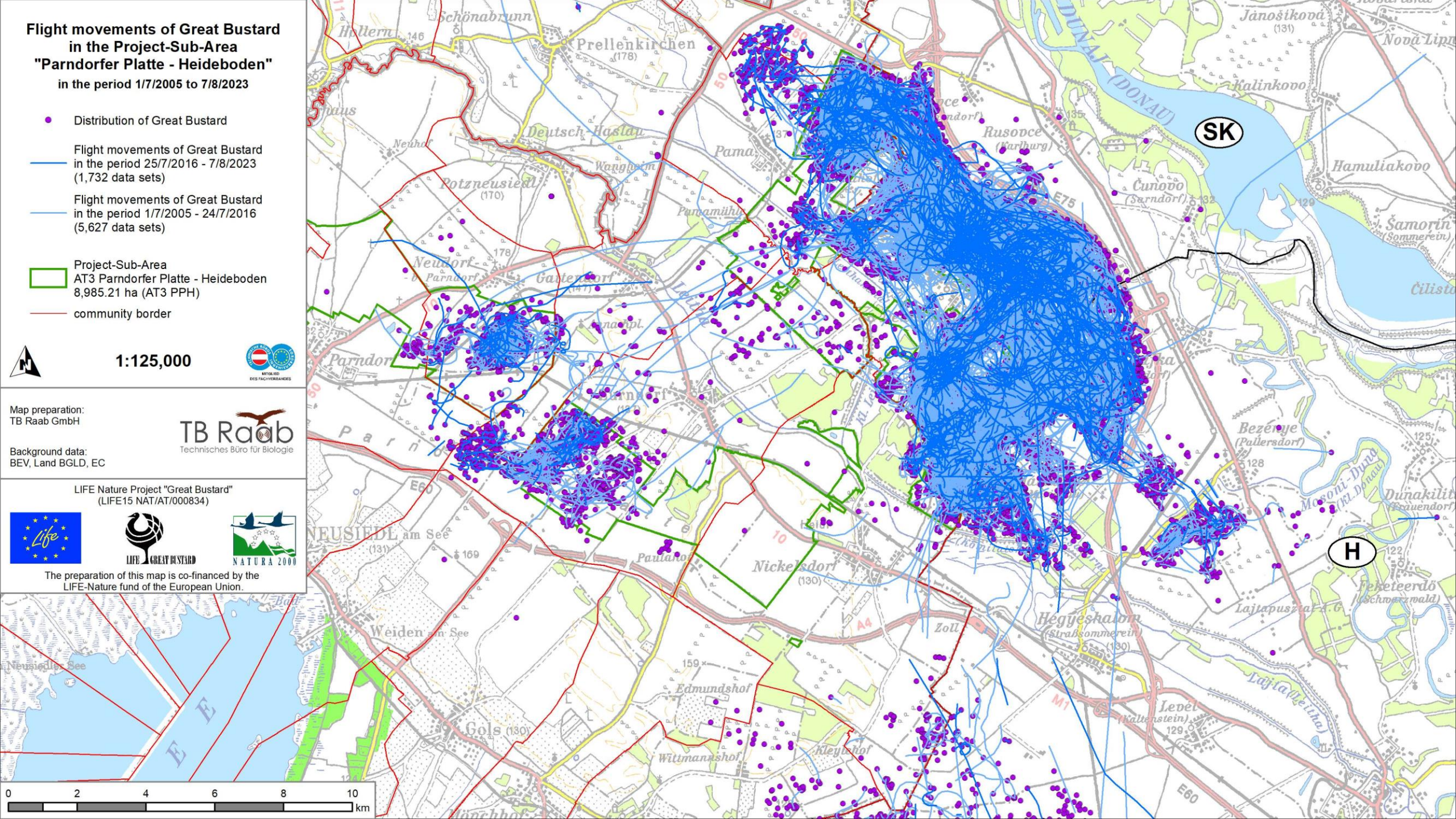
Map preparation:
TB Raab GmbH

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Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



**Walking movements of Great Bustard
in the Project-Sub-Area
"Parndorfer Platte - Heideboden"**
in the period 1/7/2005 to 7/8/2023

- Distribution of Great Bustard
- Walking movements of Great Bustard in the period 25/7/2016 - 7/8/2023 (519 data sets)
- Walking movements of Great Bustard in the period 1/7/2005 - 24/7/2016 (2,081 data sets)
- Project-Sub-Area AT3 Parndorfer Platte - Heideboden, 8,985.21 ha (AT3 PPH)
- community border

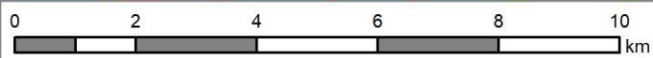
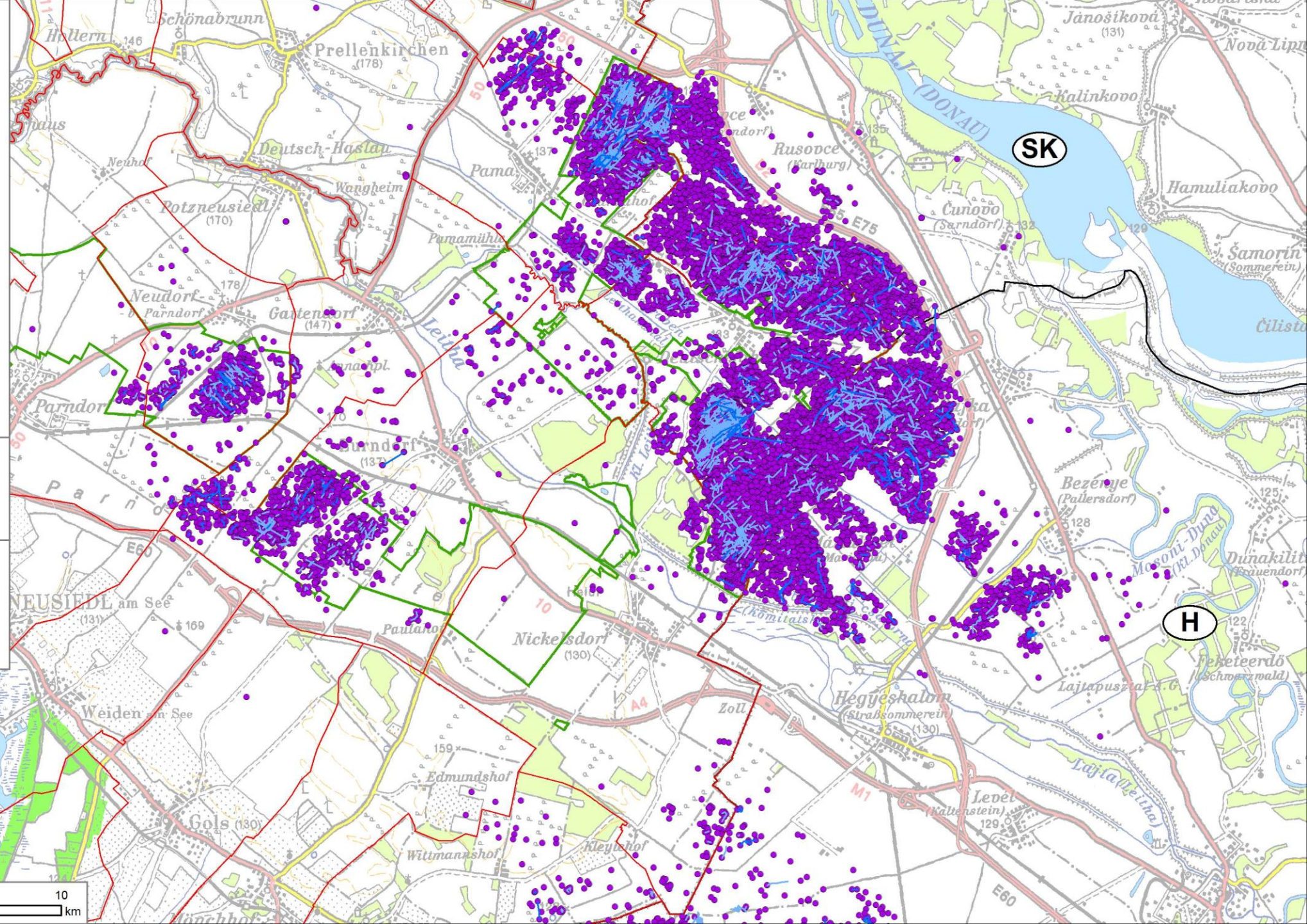
1:125,000

Map preparation:
TB Raab GmbH

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



The characteristics of the Great Bustard's flight



The male Great Bustard is the heaviest flying bird in the World (together with the male Kori Bustard, Alonso et al. 2009).

Alonso, J. C., Magaña, M., Alonso, J. A., Palacín, C., Martín, C. A. & Martín, B. (2009): The most extreme sexual size dimorphism among birds: allometry, selection, and early juvenile development in the Great Bustard. *Auk* 126: 657–665.

Collisions with overhead power lines

- Collision with power lines is indeed the main mortality factor for fully grown great bustards in many areas (e.g. Martín et al. 2004; Palacín et al. 2004, Raab et al. 2012).

Martín, B., Martín, C. A., Palacín, C., Magaña, M., Alonso, J. & Alonso, J. C. (2004): Effect of collision with power lines on the viability of the Great Bustard metapopulation in Madrid province. International Symposium on Ecology and Conservation of Steppe-land Birds, Lleida. Poster.

Palacín, C., Alonso, J. C., Martín, C. A., Magaña, M., Martín, B. & Alonso, J. A. (2004): La Avutarda. In: Madroño, A., González, C. & Atienza, J. C. (Eds.): Libro Rojo de las Aves de España, 209–213. SEO/Birdlife-Ministerio de Medio Ambiente, Madrid.

Raab, R., Schütz, C., Spakovszky, P., Julius, E. & Schulze, C. H. (2012): Underground cabling and marking of power lines: conservation measures rapidly reduced mortality of West-Pannonian Great Bustards *Otis tarda*. Bird Conservation International 22: 299–306.



Main measures of the 3 LIFE and LIFE+ Project in Austria



- **transfer ca. 150 km of 20 kV power lines** that run through important bustard areas **below the soil** (costs: ca. 50.000 - 100.000 Euro/km)
- **mark ca. 150 km of 110 kV, 220 kV & 380 kV power lines** to make them better visible to bustards (costs: ca. 10.000 - 30.000 Euro/km)



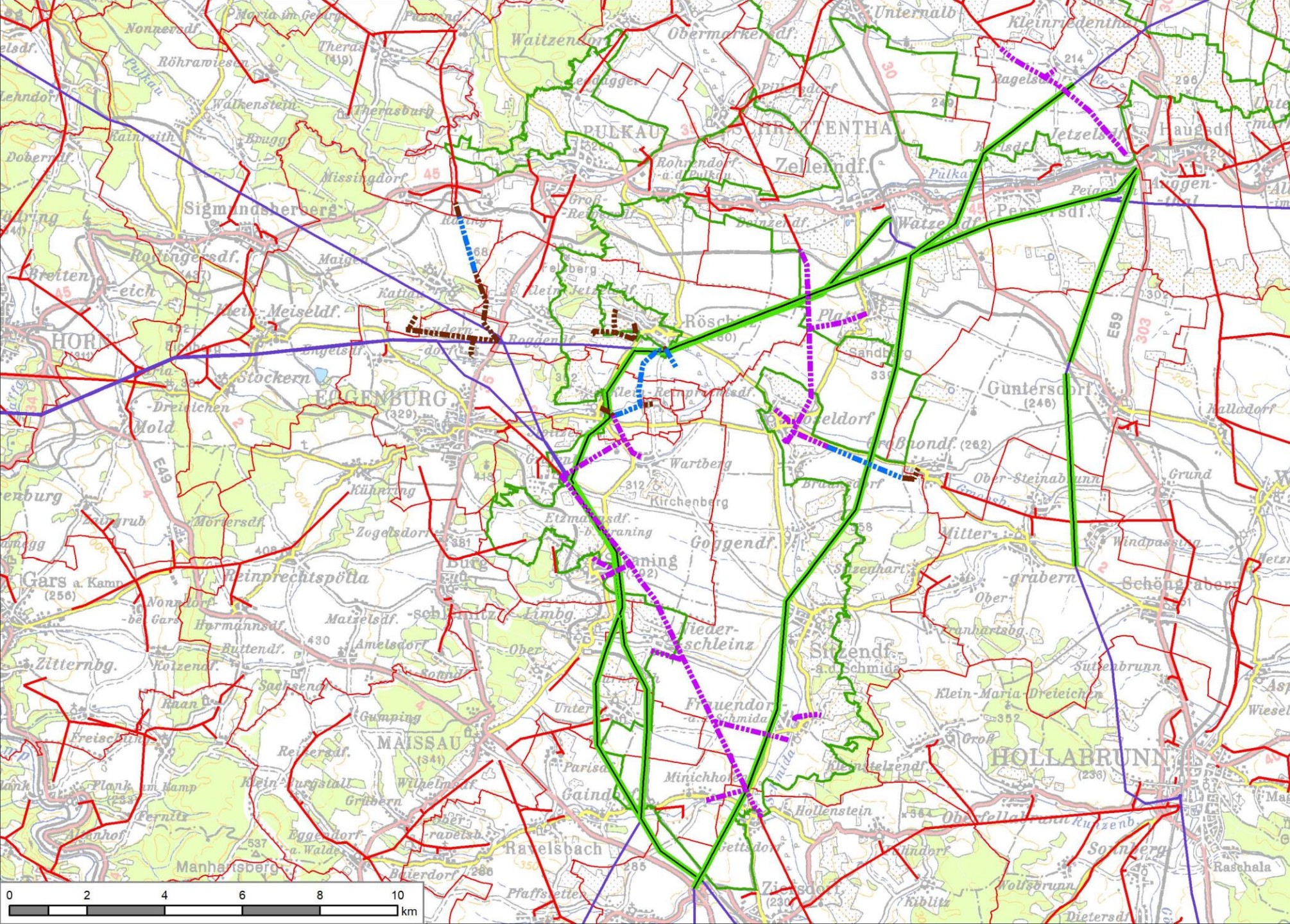


Foto: S. Raab

















Powerline Actions in the Project-Sub-Area "Westliches Weinviertel"

-  20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" 2016 - 2023 from 2017 to August 2022 (ca. 6.6 km)
-  20 kV power line, which was additionally removed in the period 2016 - 2023 from December 2019 to August 2022 (ca. 9.4 km)
-  20 kV power line, which was removed in the course of the LIFE Project in Sep. 2006, Aug. 2007, and from Jan. 2008 to Okt. 2008 (ca. 22.9 km)
-  selected medium-voltage power line (20 kV)
-  110 kV power line, which has been marked in the course of the LIFE Project between 2005 and 2010 (ca. 79.7 km)
-  selected high-voltage power line (110, 220 and 380 kV)
-  Project-Sub-Area AT1 Westliches Weinviertel 16,903.90 ha (AT1 WWV)
-  community border



1:125,000



Map preparation:
TB Raab GmbH

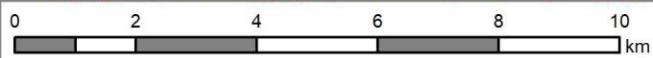


Background data:
BEV, Land NÖ, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



**Cause of death:
Collision with Power Line
in the Project-Sub-Area
"Westliches Weinviertel"**

in the period 1/8/2002 to 21/4/2019

-  collision with power line sure (14 x)
-  20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" from 2017 to August 2022 (including additional removals)
-  20 kV power line, which was removed in the course of the LIFE Project in Sep. 2006, Aug. 2007, and from Jan. 2008 to Okt. 2008
-  selected medium-voltage power line (20 kV)
-  110 or 380 kV power line, which has been marked between August 2006 and April 2010
-  selected high-voltage power line (110, 220 and 380 kV)
-  Project-Sub-Area AT1 Westliches Weinviertel 16.903.90 ha (AT1 WWV)
-  community border



1:125,000



Map preparation:
TB Raab GmbH

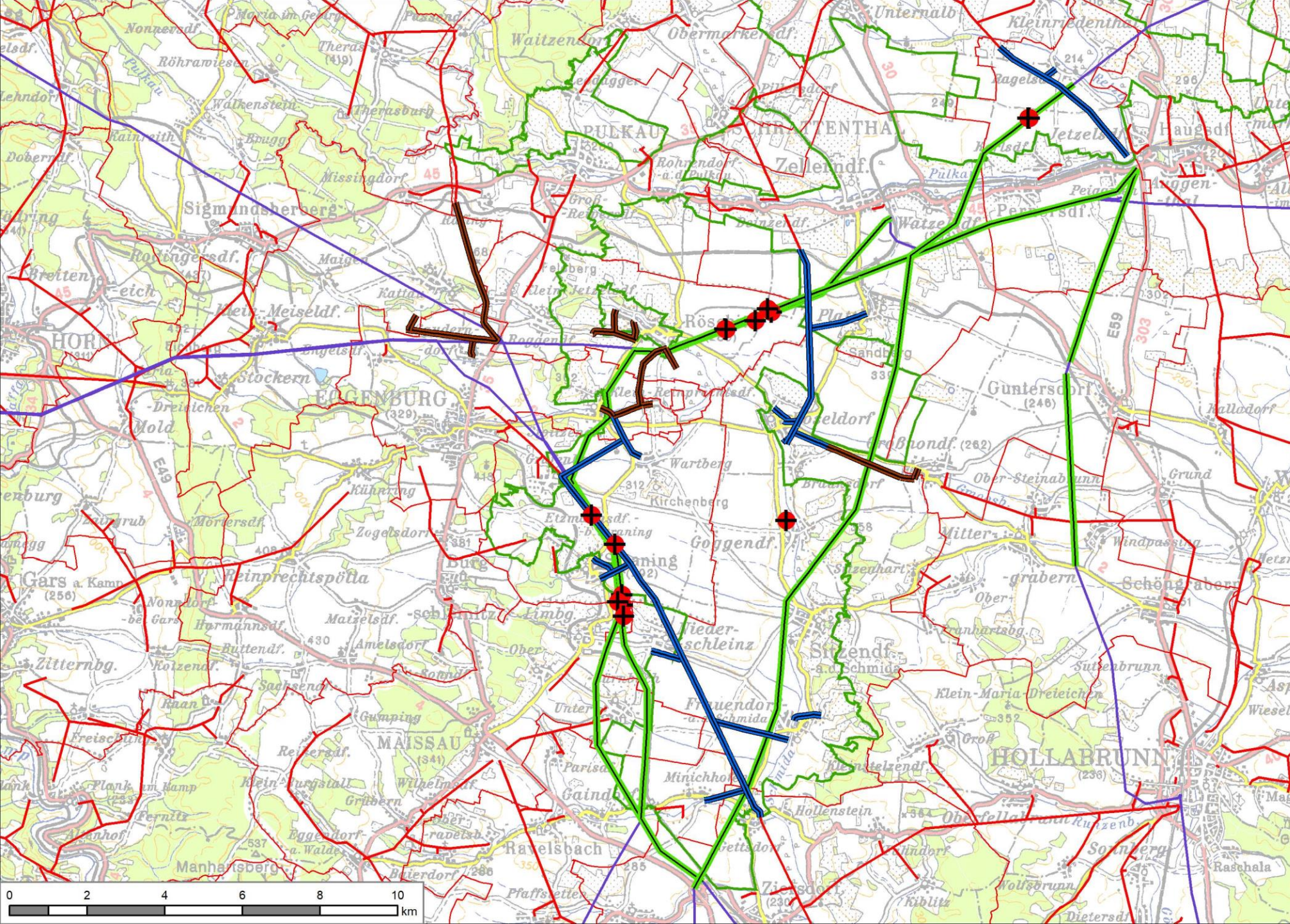
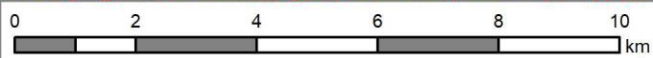


Background data:
BEV, Land NO, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Distribution of Great Bustard in the Project-Sub-Area "Westliches Weinviertel"

in the period 1/8/2002 to 29/2/2008
(Individuals)

- 1
- 2 - 5
- 6 - 25
- 26 - 51

- Great Bustard habitat, that was not divided by medium- and high-voltage power lines (4,468 ha)
- 20 kV power line, which was removed in the course of the LIFE Project in Sep. 2006, Aug. 2007, and from Jan. 2008 to Okt. 2008
- selected medium-voltage power line (20 kV)
- 110 or 380 kV power line, which has been marked between August 2006 and April 2010
- selected high-voltage power line (110, 220 and 380 kV)
- Project-Sub-Area AT1 Westliches Weinviertel 16,903.90 ha (AT1 WWV)
- community border



1:125,000



Map preparation:
TB Raab GmbH

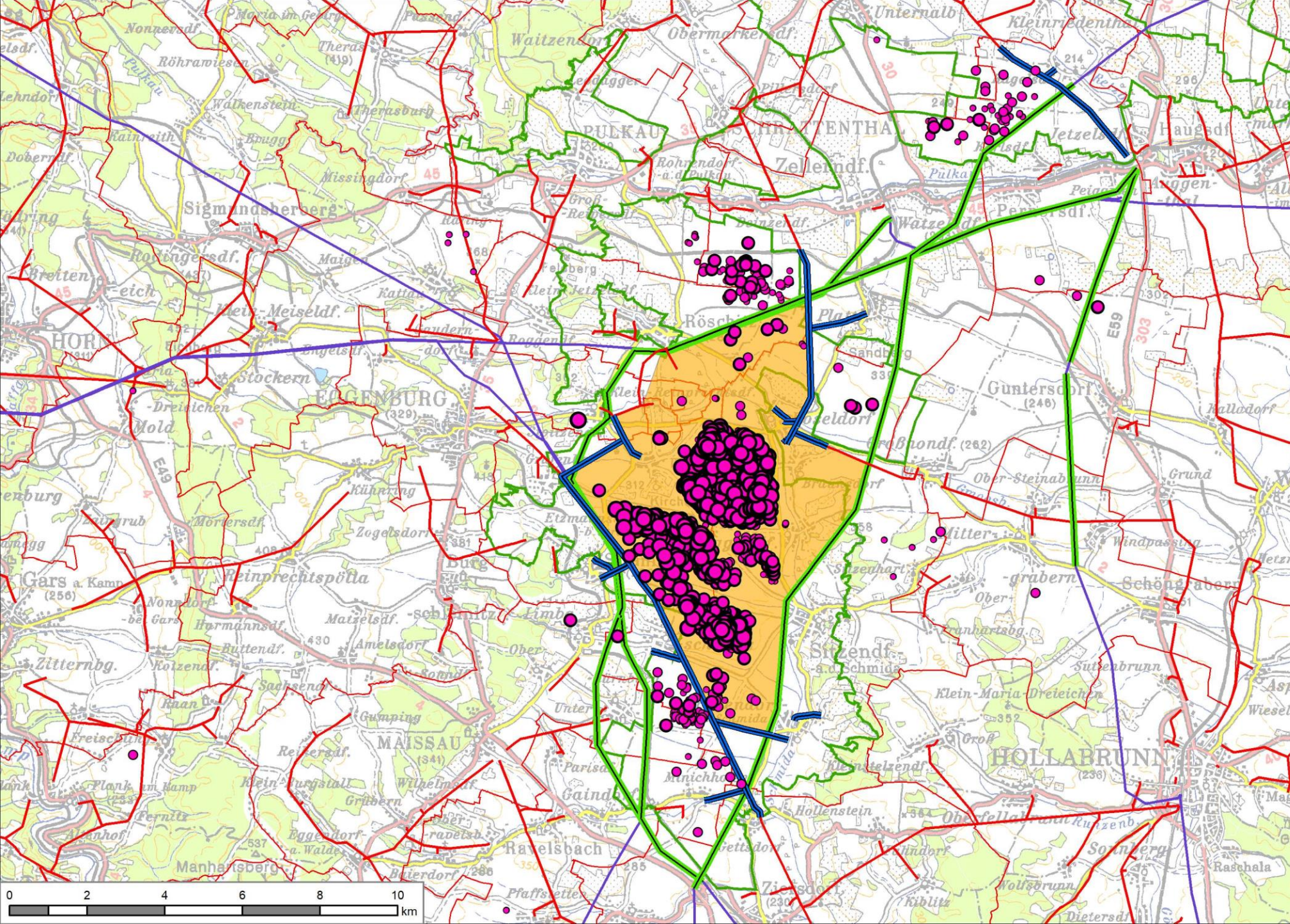
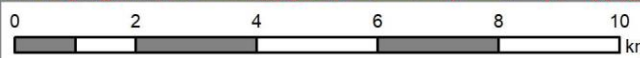
Background data:
BEV, Land NÖ, EC

TB Raab
Technisches Büro für Biologie

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Distribution of Great Bustard in the Project-Sub-Area "Westliches Weinviertel"

in the period 1/3/2008 to 5/5/2023 (Individuals)

- 1
- 2 - 5
- 6 - 25
- 26 - 65

- Great Bustard habitat, that is not divided by medium- and high-voltage power lines (6,938 ha)
- 20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" from 2017 to August 2022 (including additional removals)
- 20 kV power line, which was removed in the course of the LIFE Project in Sep. 2006, Aug. 2007, and from Jan. 2008 to Okt. 2008
- selected medium-voltage power line (20 kV)
- 110 or 380 kV power line, which has been marked between August 2006 and April 2010
- selected high-voltage power line (110, 220 and 380 kV)
- Project-Sub-Area AT1 Westliches Weinviertel 16,903.90 ha (AT1 WWV)
- community border



1:125,000



Map preparation:
TB Raab GmbH

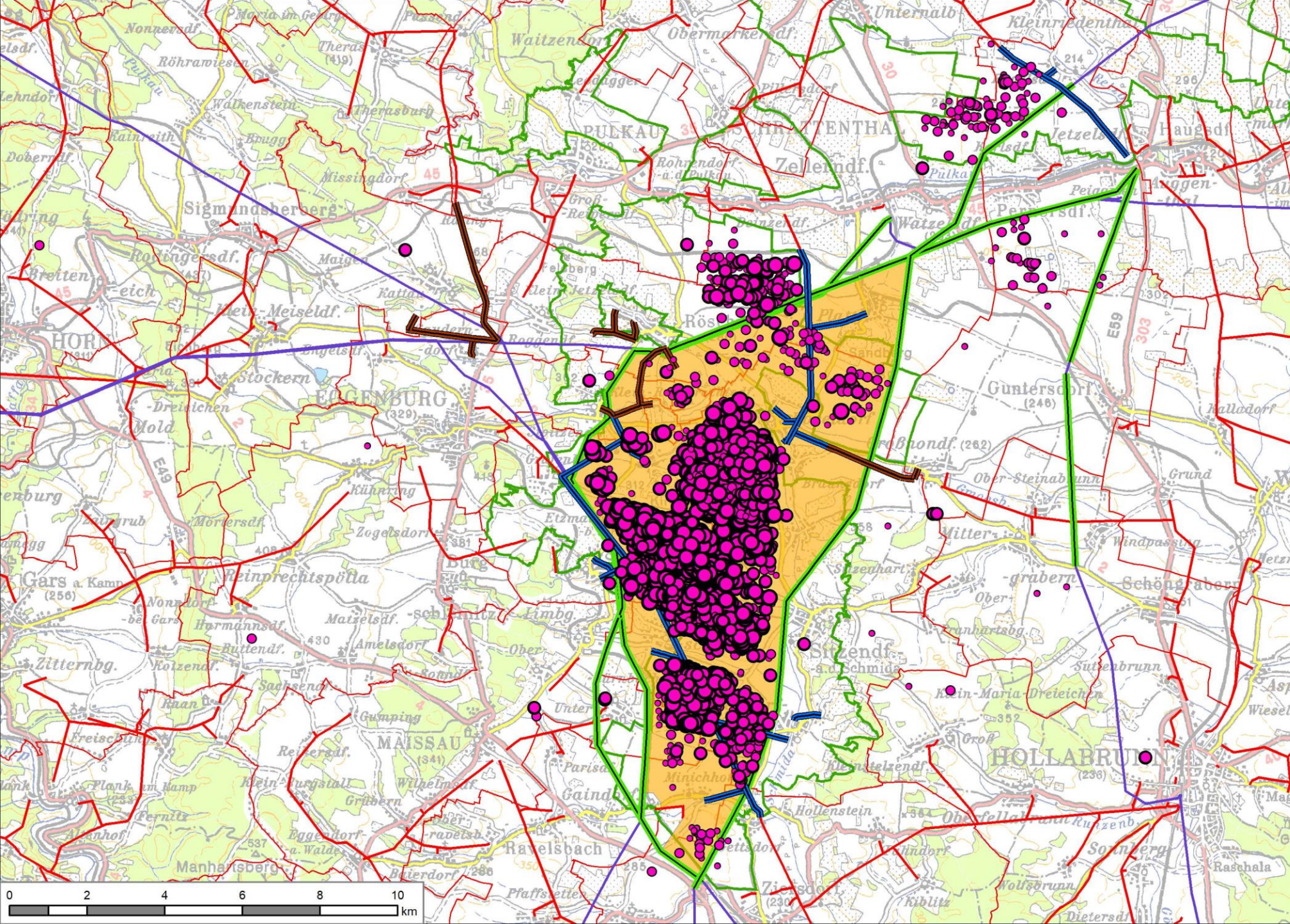
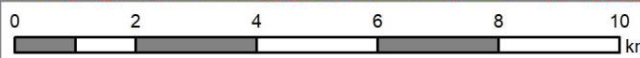
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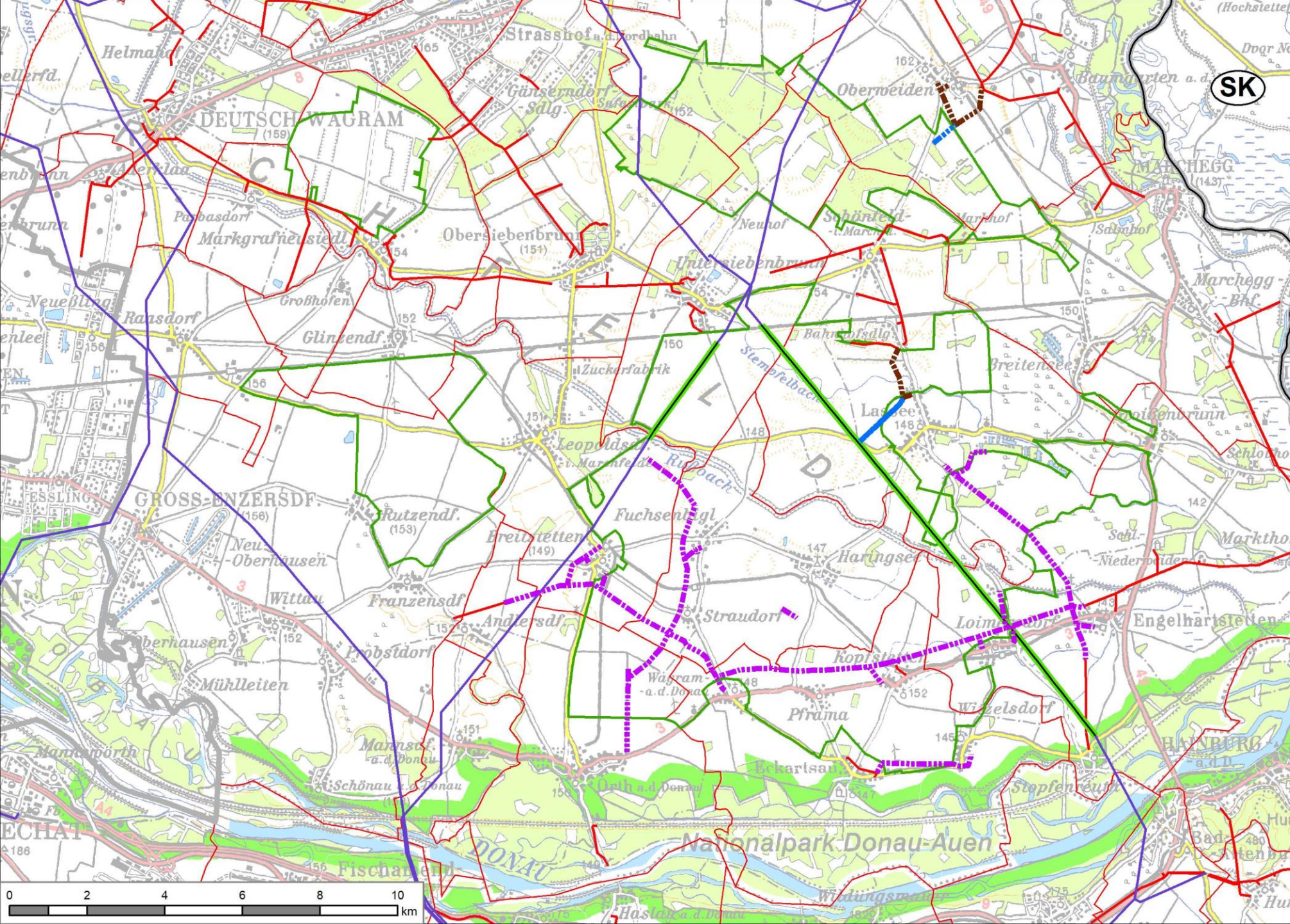
TB Raab
Technisches Büro für Biologie

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.





Powerline Actions in the Project-Sub-Area "Sandboden und Praterterrasse"

- 20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" 2016 - 2023 from December 2019 to March 2020 (ca. 4.0 km)
- 20 kV power line, which was additionally removed in the period 2016 - 2023 from December 2019 to March 2020 (ca. 4.3 km)
- 20 kV power line, which was removed in the course of the LIFE+ Project between 2010 and 2015 (42.3 km, including additional removals)
- selected medium-voltage power line (20 kV)
- 110 kV power line, which has been marked in the course of the LIFE and the LIFE+ Projects between 2005 and 2015 (ca. 16.7 km)
- selected high-voltage power line (110, 220 and 380 kV)
- Project-Sub-Area AT2 Sandboden und Praterterrasse 16,312.62 ha (AT2 SPT)
- community border



1:125,000



Map preparation:
TB Raab GmbH

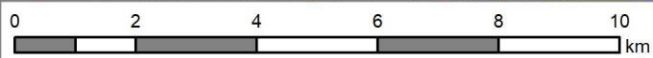


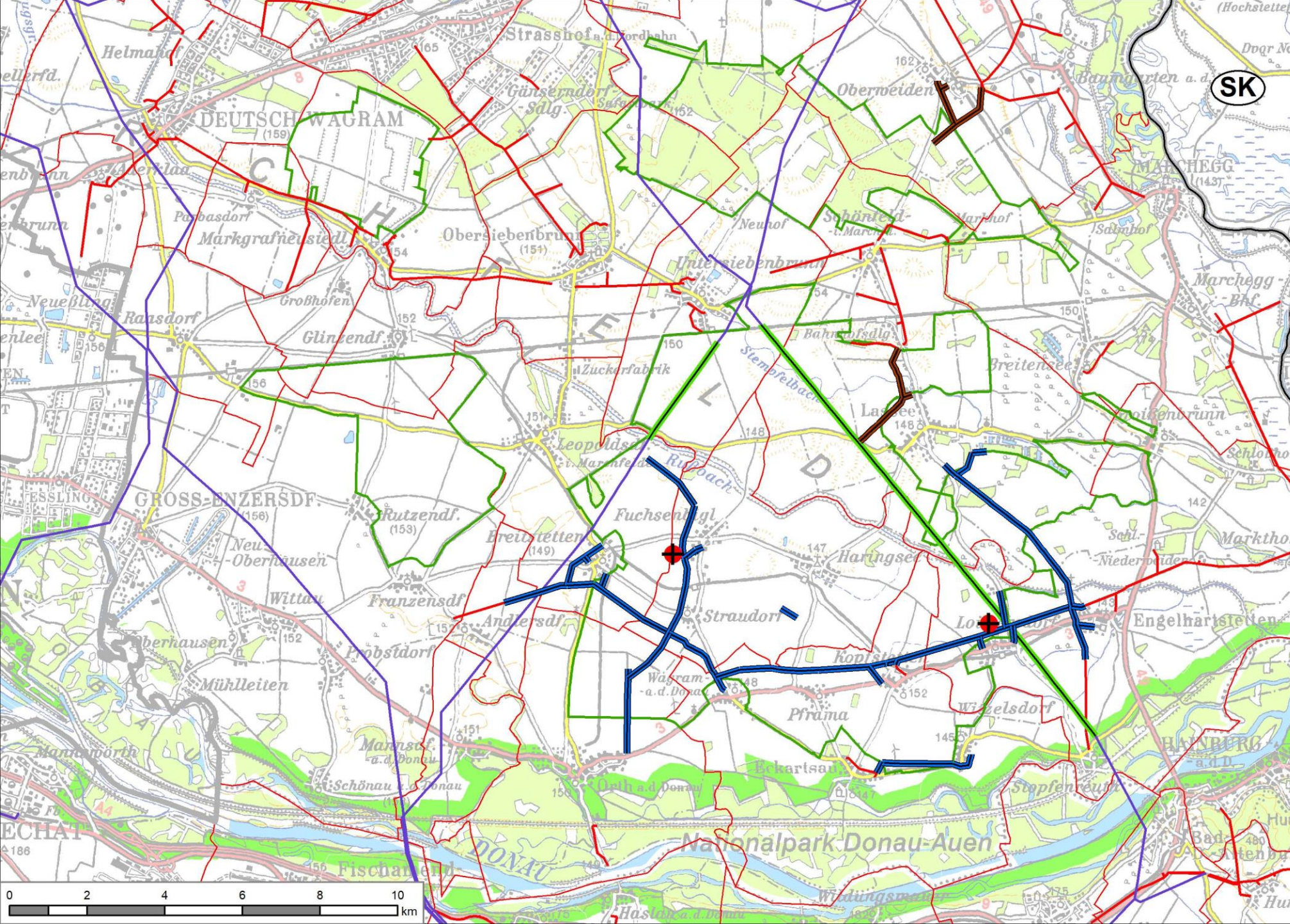
Background data:
BEV, Land NÖ, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)











The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.





**Cause of death:
Collision with Power Line
in the Project-Sub-Area
"Sandboden und Praterterrasse"**
in the period 1/8/2002 to 1/6/2010

-  collision with power line sure (2 x)
-  20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" from December 2019 to March 2020 (including additional removals)
-  20 kV power line, which was removed in the course of the LIFE+ Project between 2010 and 2015 (including additional removals)
-  selected medium-voltage power line (20 kV)
-  110 kV power line, which has been marked in the course of the LIFE and the LIFE+ Projects between 2005 and 2015
-  selected high-voltage power line (110, 220 and 380 kV)
-  Project-Sub-Area AT2 Sandboden und Praterterrasse 16,312.62 ha (AT2 SPT)
-  community border

 **1:125,000** 

Map preparation:
TB Raab GmbH

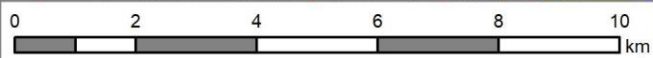
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BEV, Land NO, EC

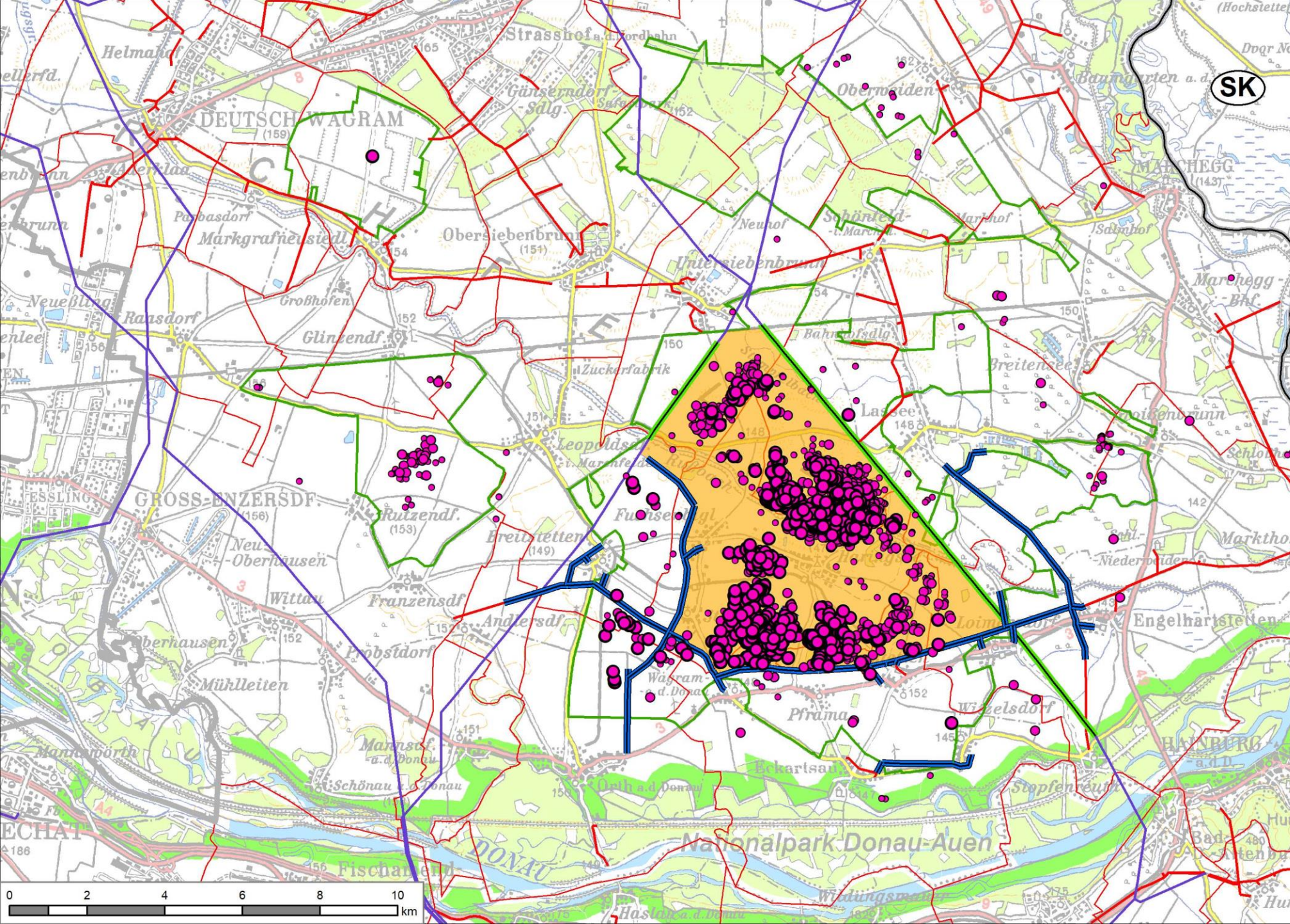
TB Raab
Technisches Büro für Biologie

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.





**Distribution of Great Bustard
in the Project-Sub-Area
"Sandboden und Praterterrasse"**
in the period 1/8/2002 to 16/12/2013
(Individuals)

- 1
 - 2 - 5
 - 6 - 16
- Great Bustard habitat, that was not divided by medium- and high-voltage power lines (4,767 ha)
 - 20 kV power line, which was removed in the course of the LIFE+ Project between 2010 and 2015 (including additional removals)
 - selected medium-voltage power line (20 kV)
 - 110 kV power line, which has been marked in the course of the LIFE and the LIFE+ Projects between 2005 and 2015
 - selected high-voltage power line (110, 220 and 380 kV)
 - Project-Sub-Area AT2 Sandboden und Praterterrasse 16,312.62 ha (AT2 SPT)
 - community border

1:125,000

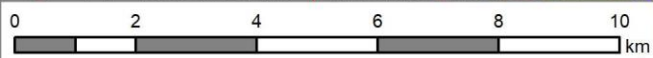
Map preparation:
TB Raab GmbH

Background data:
BEV, Land NÖ, EC

TB Raab
Technisches Büro für Biologie

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



**Distribution of Great Bustard
in the Project-Sub-Area
"Sandboden und Praterterrasse"**
in the period 17/12/2013 to 11/9/2023
(Individuals)

- 1
- 2 - 5
- 6 - 14

- Great Bustard habitat, that is not divided by medium- and high-voltage power lines (11,184 ha)
- 20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" from December 2019 to March 2020 (including additional removals)
- 20 kV power line, which was removed in the course of the LIFE+ Project between 2010 and 2015 (including additional removals)
- selected medium-voltage power line (20 kV)
- 110 kV power line, which has been marked in the course of the LIFE and the LIFE+ Projects between 2005 and 2015
- selected high-voltage power line (110, 220 and 380 kV)
- Project-Sub-Area AT2 Sandboden und Praterterrasse 16,312.62 ha (AT2 SPT)
- community border



1:125,000



Map preparation:
TB Raab GmbH

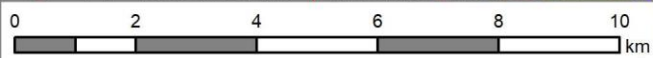
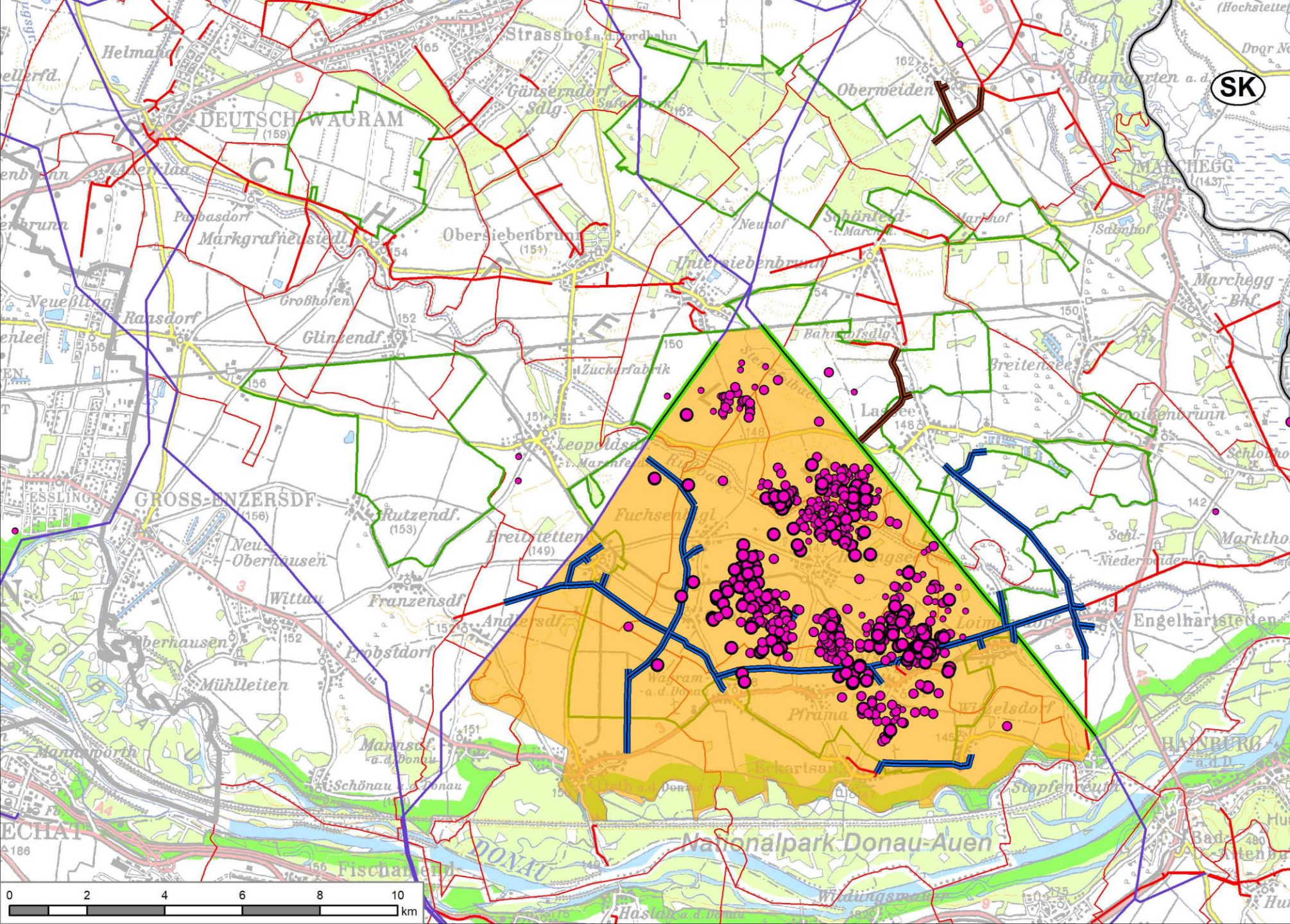
Background data:
BEV, Land NO, EC



LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Powerline Actions in the Project-Sub-Area "Parndorfer Platte - Heideboden"

20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" 2016 - 2023 from November 2017 to January 2018 (ca. 1.6 km) and from June 2020 to December 2020 (ca. 7.4 km)



20 kV power line, which was additionally removed in the period 2016 - 2023 from October 2016 to December 2020 (ca. 20.1 km)



20 kV power line, which was removed in the course of the LIFE Project between 2005 and 2010 and the LIFE+ Project between 2010 and 2015 (19.7 km)



selected medium-voltage power line (20 kV)



110, 220 or 380 kV power line, which has been marked between July 2006 and August 2017 (ca. 64.2 km)



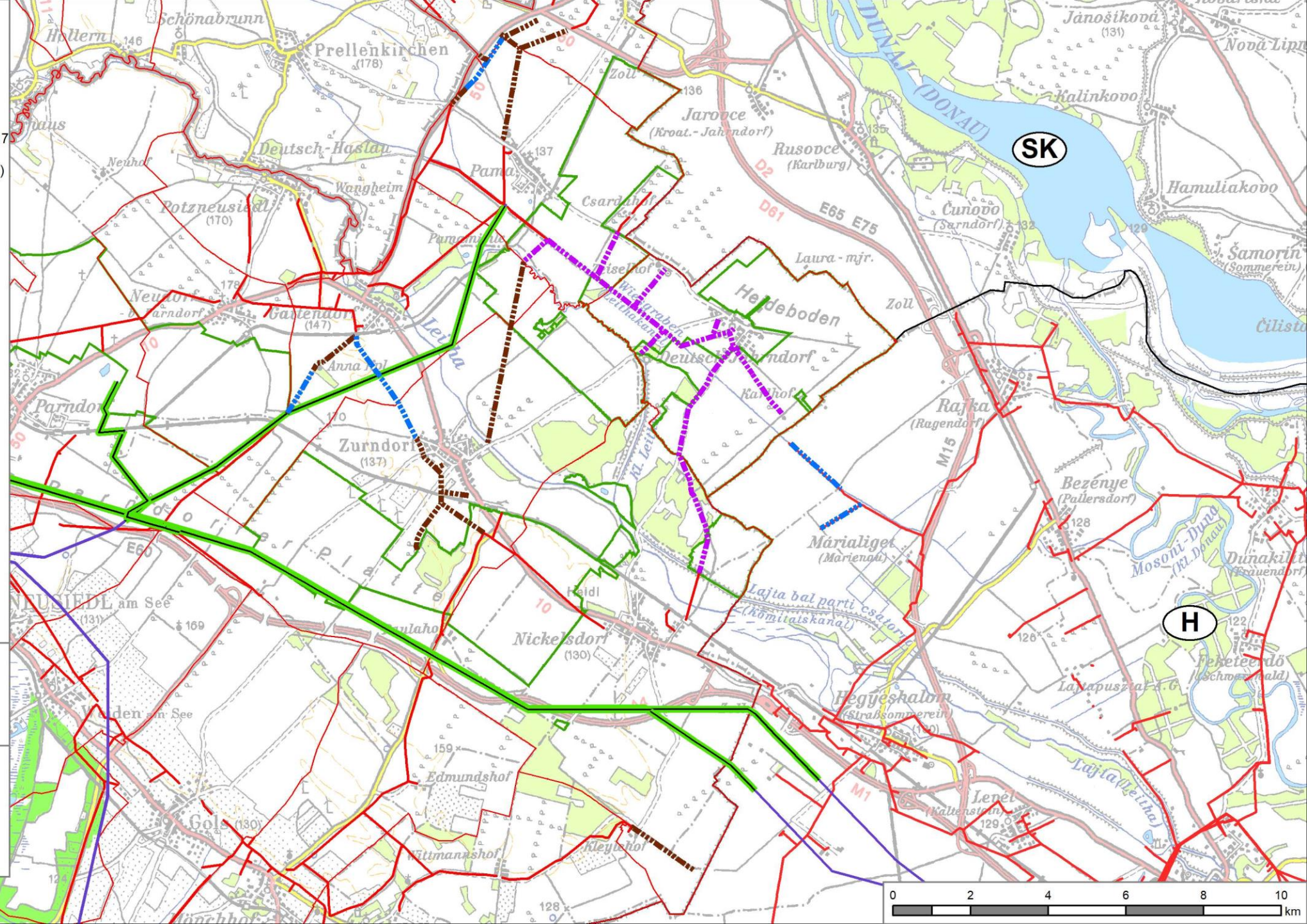
selected high-voltage power line (110, 220 and 380 kV)



Project-Sub-Area AT3 Parndorfer Platte - Heideboden 8,985.21 ha (AT3 PPH)



community border



1:125,000



Map preparation:
TB Raab GmbH

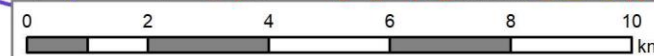
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC










LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



**Cause of death:
Collision with Power Line
in the Project-Sub-Area
"Parndorfer Platte - Heideboden"**
in the period 1/8/2002 to 6/9/2023

-  collision with power line sure (36 x)
-  collision with power line probable (1 x)
-  20 kV power line, which was/is removed in the course of the LIFE Project "Great Bustard" between 2017 and 2018, and between June 2020 and December 2020 (including additional removals)
-  20 kV power line, which was removed in the course of the LIFE Project between 2005 and 2010 and the LIFE+ Project between 2010 and 2015
-  selected medium-voltage power line (20 kV)
-  110, 220 or 380 kV power line, which has been marked between July 2006 and August 2017
-  selected high-voltage power line (110, 220 and 380 kV)
-  Project-Sub-Area AT3 Parndorfer Platte - Heideboden 8,985.21 ha (AT3 PPH)
-  community border

1:125,000



Map preparation:
TB Raab GmbH

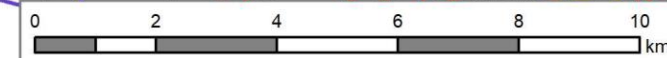
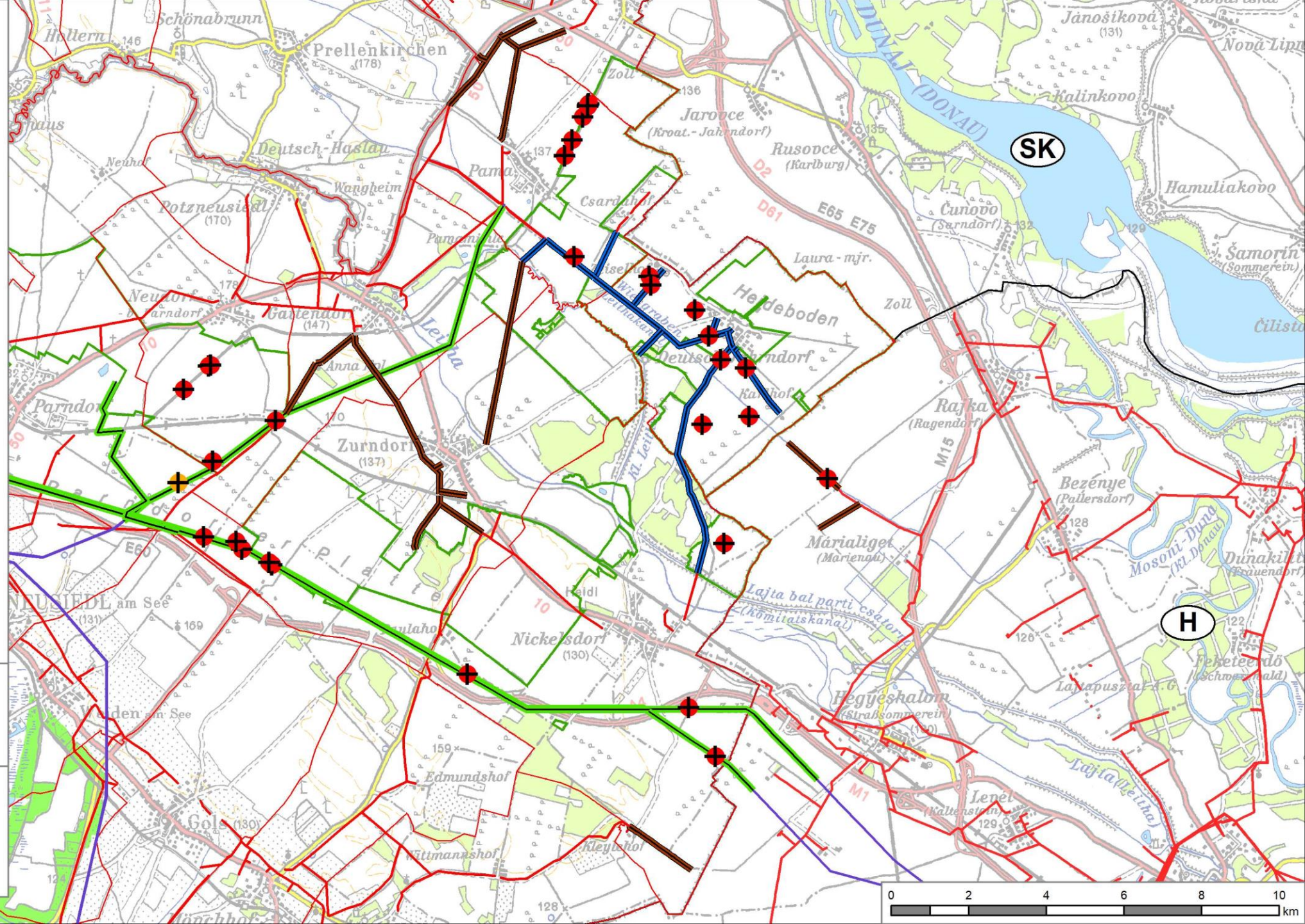
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Distribution of Great Bustard in the Project-Sub-Area "Parndorfer Platte - Heideboden"

in the period 1/8/2002 to 1/12/2006
(Individuals)

- 1
- 2 - 5
- 6 - 25
- 26 - 75
- 76 - 198

- Great Bustard habitat, that was not divided by medium- and high-voltage power lines (6,934 ha)
- 20 kV power line, which was removed in the course of the LIFE Project between 2005 and 2010 and the LIFE+ Project between 2010 and 2015
- selected medium-voltage power line (20 kV)
- 110, 220 or 380 kV power line, which has been marked between July 2006 and August 2017
- selected high-voltage power line (110, 220 and 380 kV)
- Project-Sub-Area AT3 Parndorfer Platte - Heideboden 8,985.21 ha (AT3 PPH)
- community border

1:125,000



Map preparation:
TB Raab GmbH

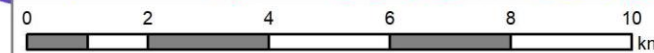
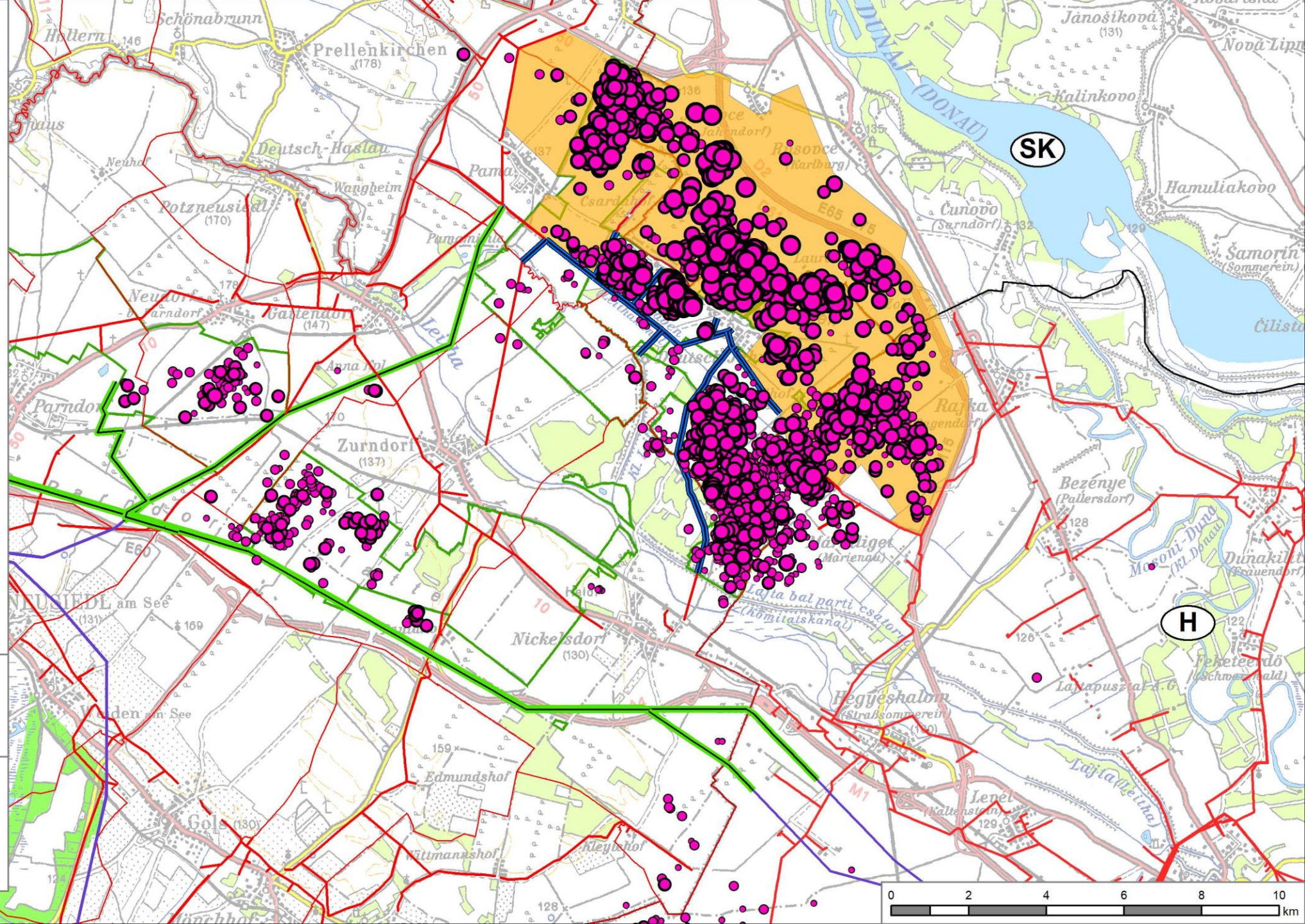
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

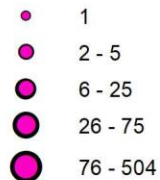


The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Distribution of Great Bustard in the Project-Sub-Area "Parndorfer Platte - Heideboden"

in the period 2/12/2006 to 7/8/2023
(Individuals)



Great Bustard habitat, that is not divided by medium- and high-voltage power lines (12,756 ha)

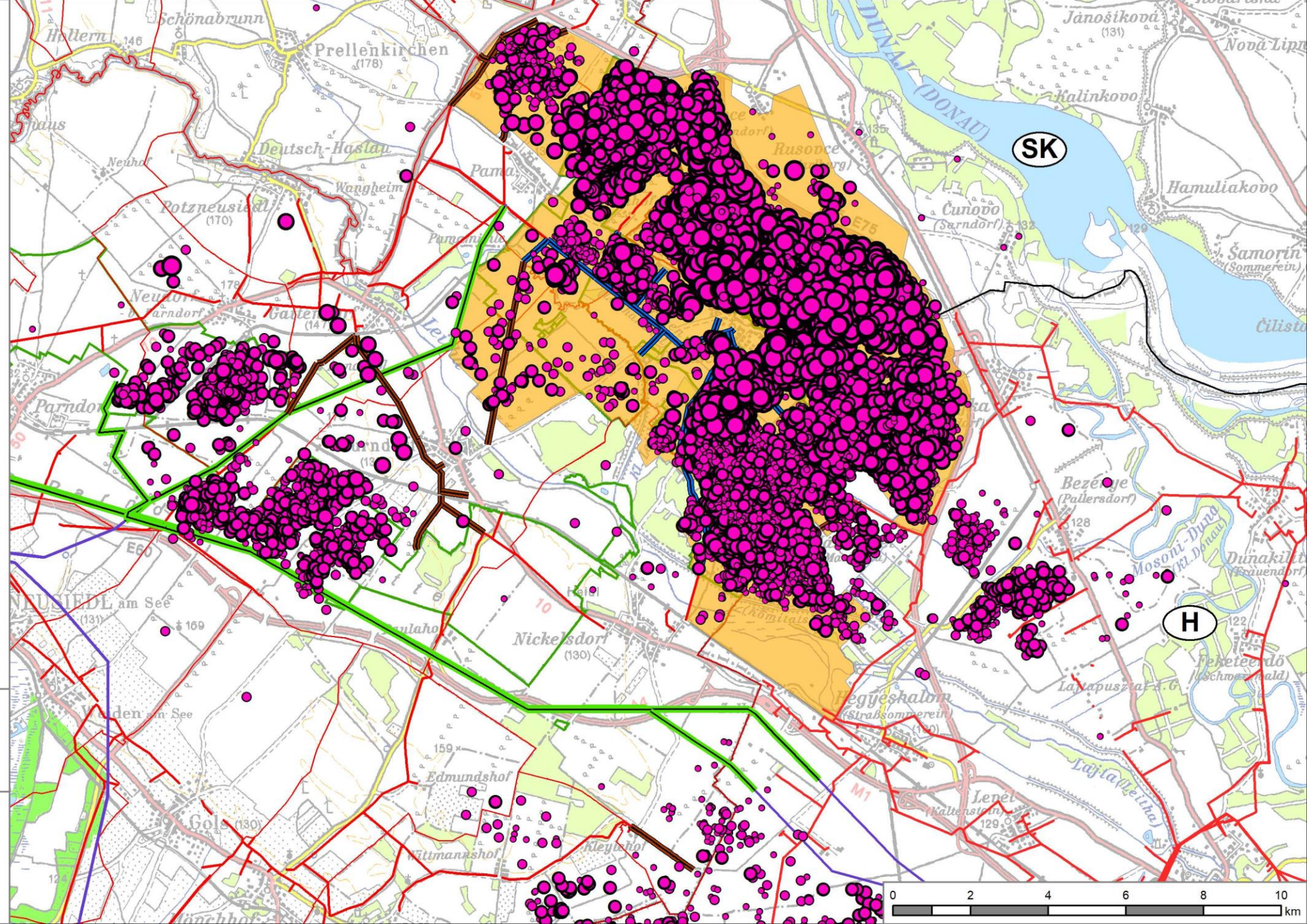
20 kV power line, which was/is removed in the course of the LIFE Project "Great Bustard" between 2017 and 2018, and between June 2020 and December 2020 (including additional removals)

20 kV power line, which was removed in the course of the LIFE Project between 2005 and 2010 and the LIFE+ Project between 2010 and 2015

selected medium-voltage power line (20 kV)

110, 220 or 380 kV power line, which has been marked between July 2006 and August 2017

selected high-voltage power line (110, 220 and 380 kV)



1:125,000



Map preparation:
TB Raab GmbH

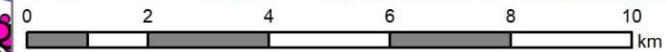
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.





Imperial Eagle
(*Aquila heliaca*)



Great Bustard and Imperial Eagle Telemetry in the Project-Sub-Area "Parndorfer Platte - Heideboden" in February 2022

- Great Bustard telemetry point in February 2022 (5 Individuals)
- Imperial Eagle telemetry point in February 2022 (6 Individuals)
- ☐ Wind turbine (Status: 2022)

Project-areas; "Parndorfer Platte - Heideboden", "Sysl'ovské polia" and "Mosoni-sík"

1:120,000



Map preparation:
TB Raab GmbH

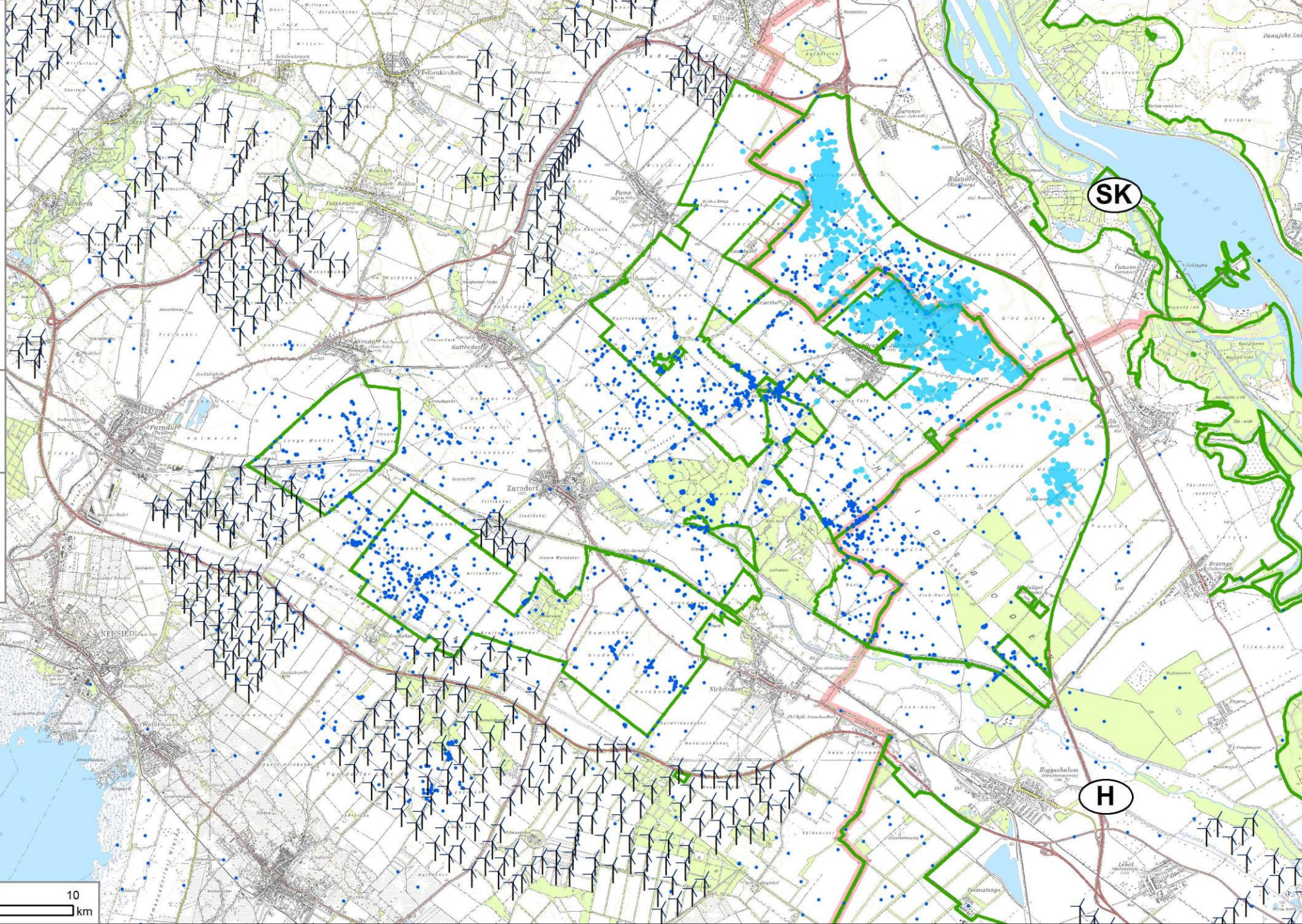
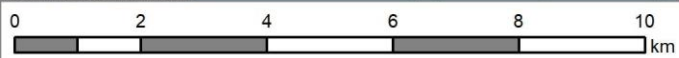


Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Great Bustard and Imperial Eagle Telemetry in the Project-Sub-Area "Parndorfer Platte - Heideboden" in May 2022

- Great Bustard telemetry point in May 2022 (5 Individuals)
- Imperial Eagle telemetry point in May 2022 (5 Individuals)
- ⚡ Wind turbine (Status: 2022)

Project-areas; "Parndorfer Platte - Heideboden", "Sysl'ovské polia" and "Mosoni-sík"

1:120,000



Map preparation: TB Raab GmbH

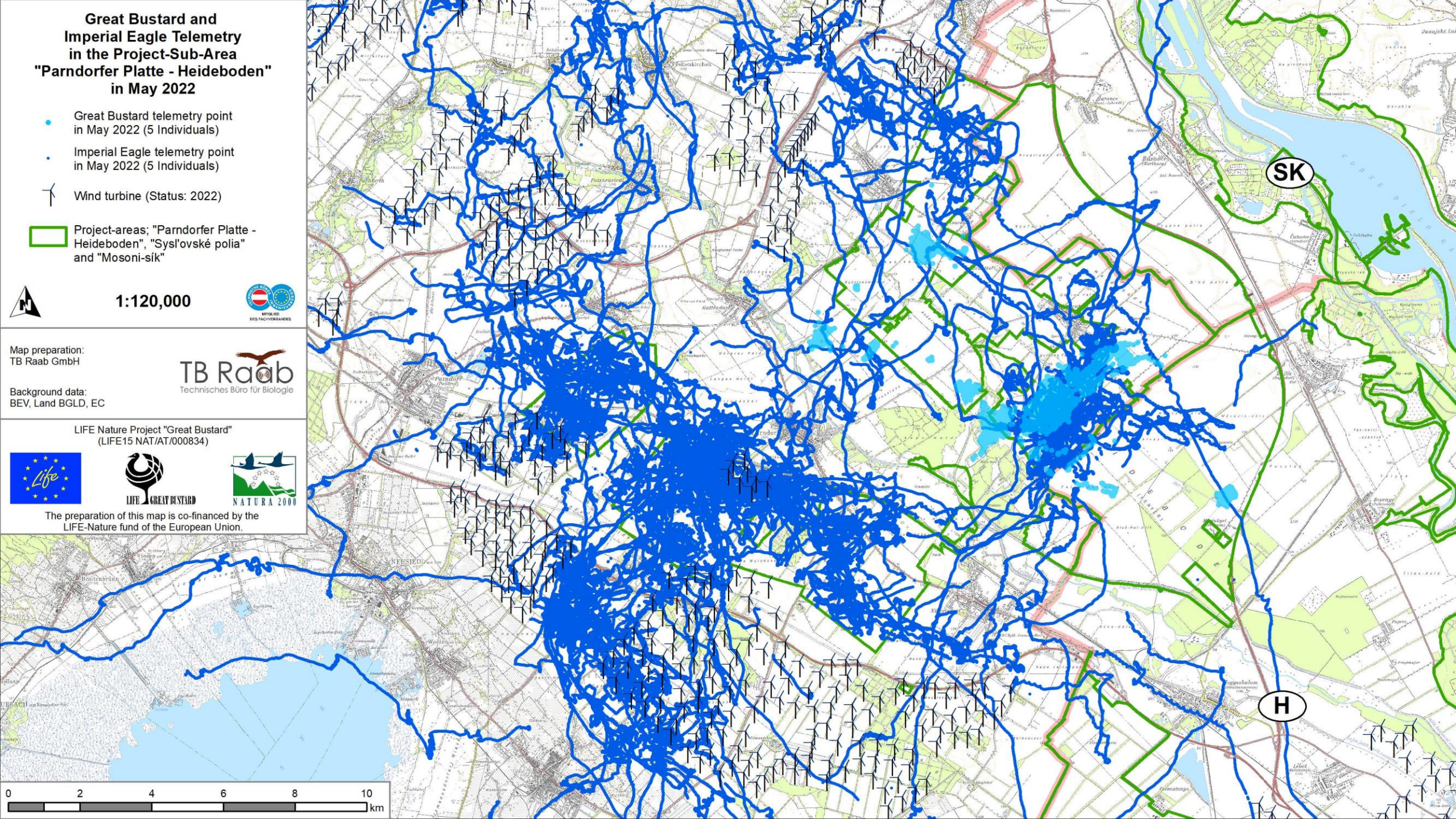


Background data: BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Great Bustard and Imperial Eagle Telemetry in the Project-Sub-Area "Parndorfer Platte - Heideboden" in September 2022

- Great Bustard telemetry point in September 2022 (6 Individuals)
- Imperial Eagle telemetry point in September 2022 (6 Individuals)
- ⚡ Wind turbine (Status: 2022)

Project-areas; "Parndorfer Platte - Heideboden", "Sysl'ovské polia" and "Mosoni-sík"

1:120,000



Map preparation: TB Raab GmbH

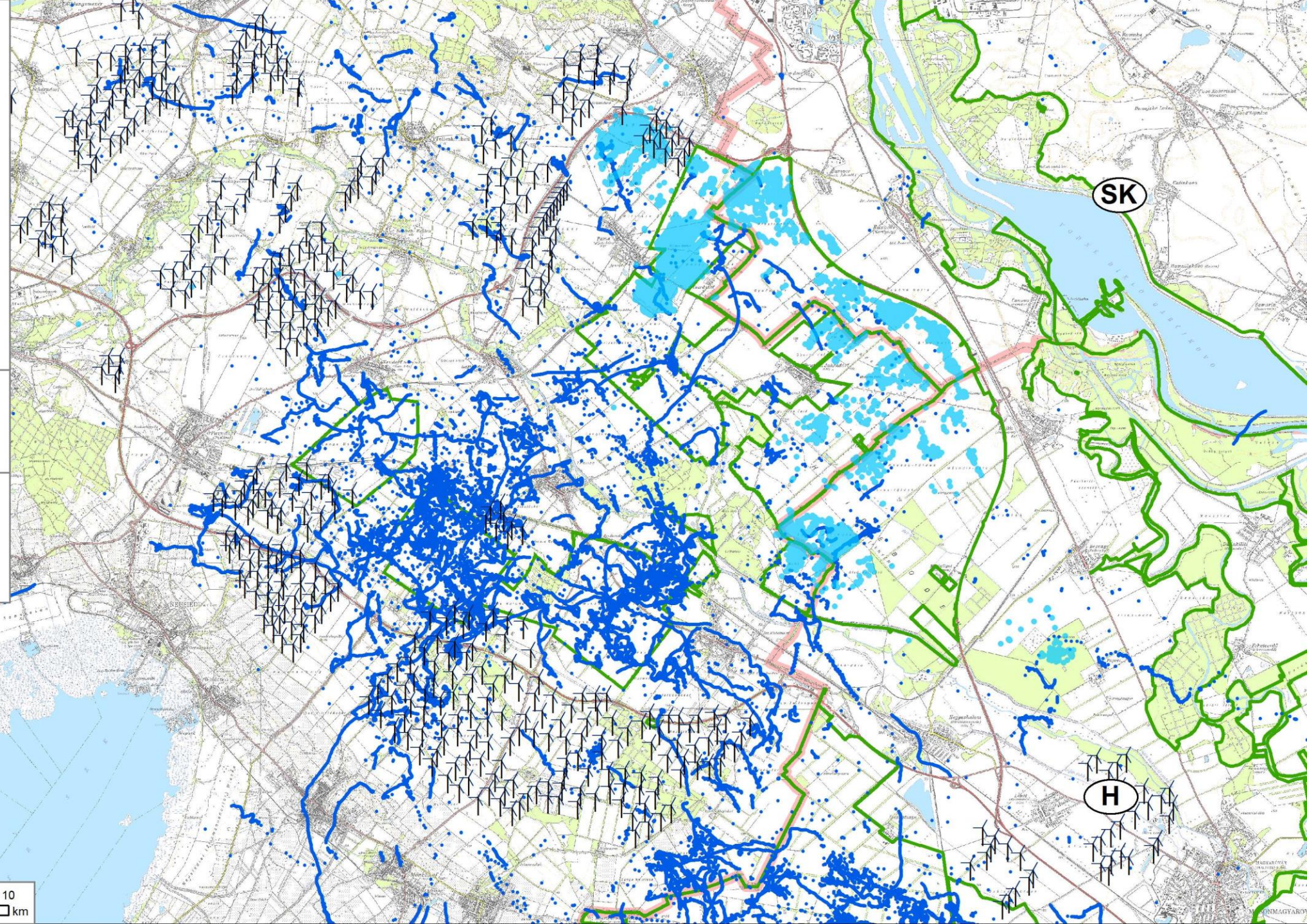
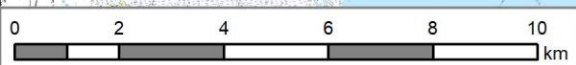


Background data: BEV, Land BGLD, EC

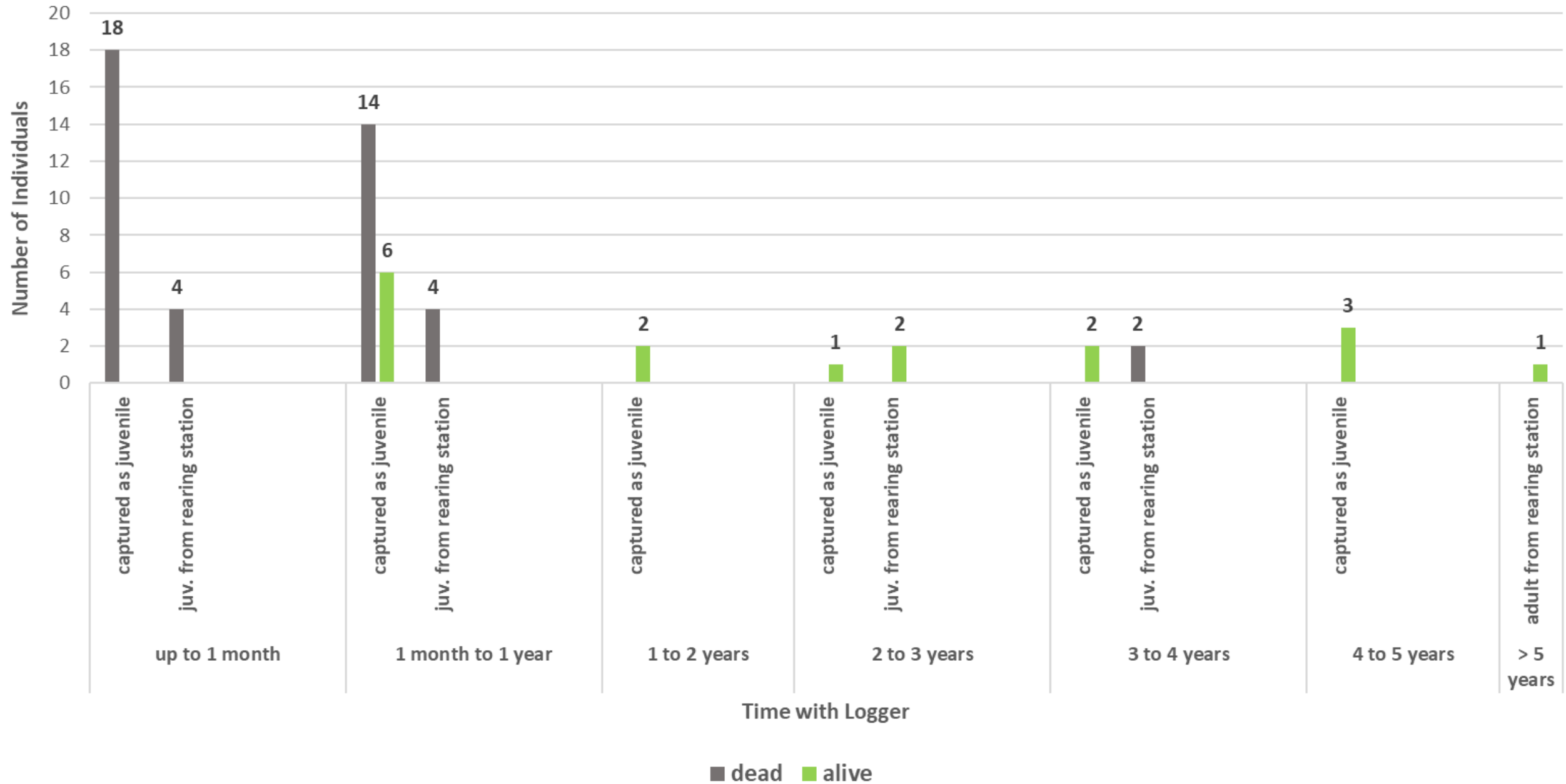
LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)

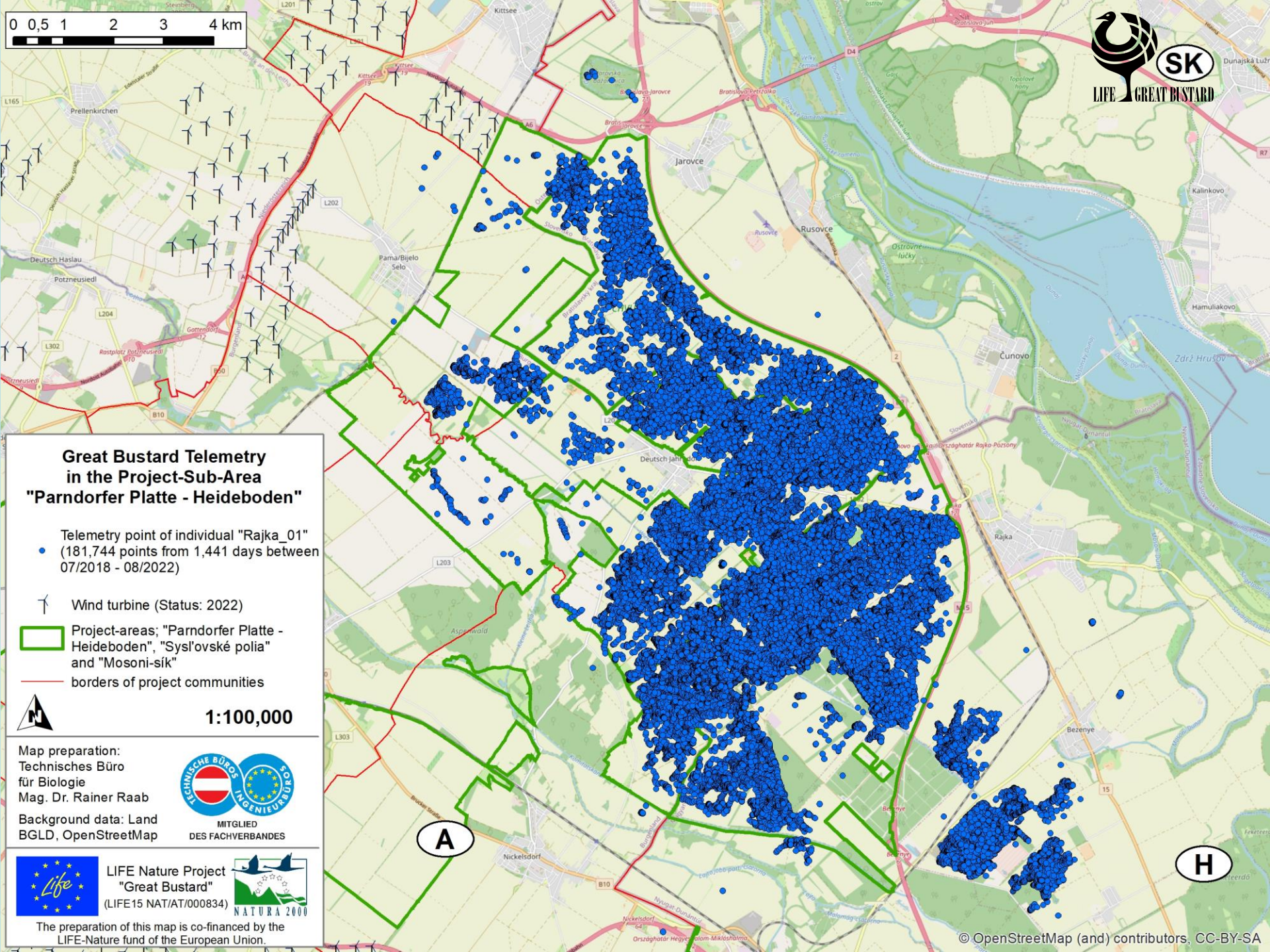
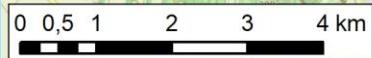


The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Great Bustard Telemetry: Tagged Individuals (n = 59, Status: 24.05.2023)





**Great Bustard Telemetry
in the Project-Sub-Area
"Parndorfer Platte - Heideboden"**

Telemetry point of individual "Rajka_01"
 • (181,744 points from 1,441 days between 07/2018 - 08/2022)

⚡ Wind turbine (Status: 2022)

▭ Project-areas; "Parndorfer Platte - Heideboden", "Sysl'ovské polia" and "Mosoni-sík"

— borders of project communities

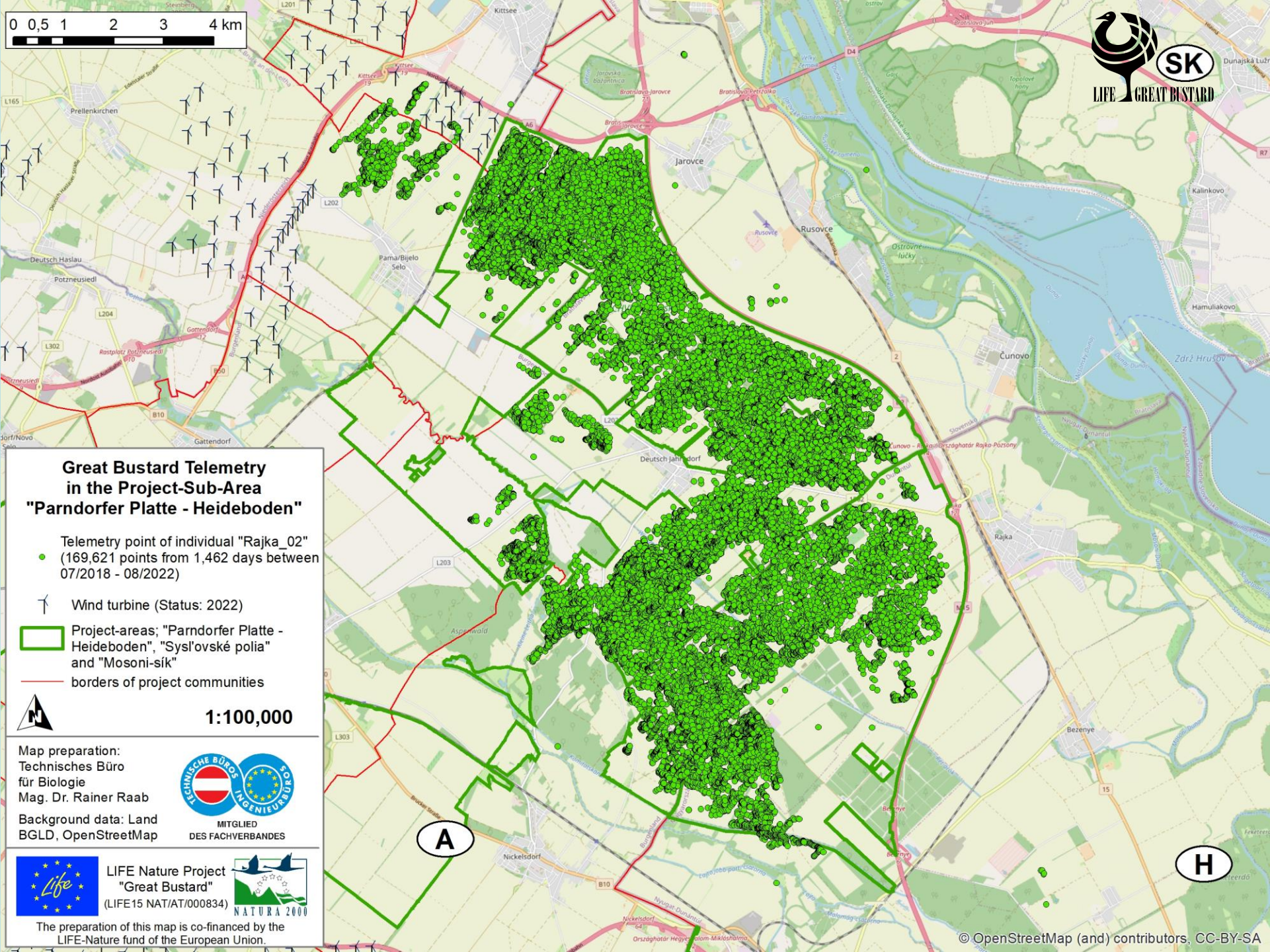
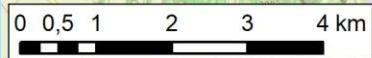
📍 1:100,000

Map preparation:
 Technisches Büro
 für Biologie
 Mag. Dr. Rainer Raab

Background data: Land
 BGLD, OpenStreetMap

LIFE Nature Project
 "Great Bustard"
 (LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



**Great Bustard Telemetry
in the Project-Sub-Area
"Parndorfer Platte - Heideboden"**

● Telemetry point of individual "Rajka_02"
(169,621 points from 1,462 days between
07/2018 - 08/2022)

⚡ Wind turbine (Status: 2022)

▭ Project-areas; "Parndorfer Platte -
Heideboden", "Sysl'ovské polia"
and "Mosoni-sík"

— borders of project communities



1:100,000

Map preparation:
Technisches Büro
für Biologie
Mag. Dr. Rainer Raab



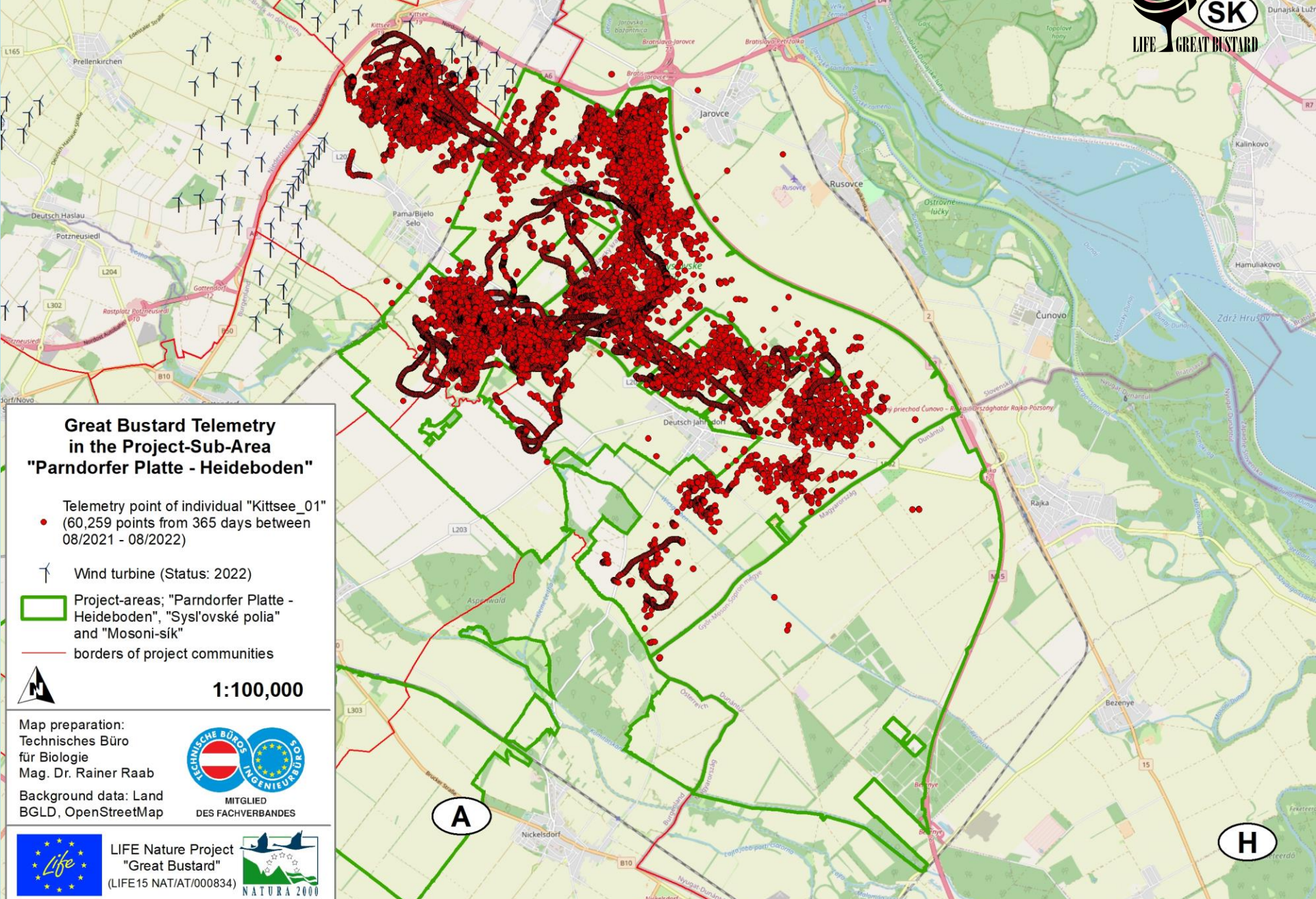
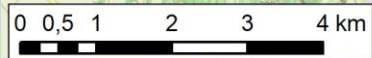
Background data: Land
BGLD, OpenStreetMap



LIFE Nature Project
"Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



**Great Bustard Telemetry
in the Project-Sub-Area
"Parndorfer Platte - Heideboden"**

- Telemetry point of individual "Kittsee_01"
(60,259 points from 365 days between 08/2021 - 08/2022)
- ⚡ Wind turbine (Status: 2022)
- ▭ Project-areas; "Parndorfer Platte - Heideboden", "Sysl'ovské polia" and "Mosoni-sík"
- borders of project communities

1:100,000

Map preparation:
Technisches Büro
für Biologie
Mag. Dr. Rainer Raab




MITGLIED
DES FACHVERBANDES

Background data: Land
BGLD, OpenStreetMap



LIFE Nature Project
"Great Bustard"
(LIFE15 NAT/AT/000834)



NATURA 2000

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Great Bustard Telemetry in the Project-Sub-Area "Parndorfer Platte - Heideboden"

- Telemetry point of individual "Kittsee_01" (60,259 points from 365 days between 08/2021 - 08/2022)
- Telemetry point of individual "Rajka_01" (181,744 points from 1,441 days between 07/2018 - 08/2022)
- Telemetry point of individual "Rajka_02" (169,621 points from 1,462 days between 07/2018 - 08/2022)

⚡ Wind turbine (Status: 2022)

▭ Project-areas; "Parndorfer Platte - Heideboden", "Sysl'ovské polia" and "Mosoni-sík"

— borders of project communities

📍 1:100,000

Map preparation:
Technisches Büro für Biologie
Mag. Dr. Rainer Raab

Background data: Land BGLD, OpenStreetMap



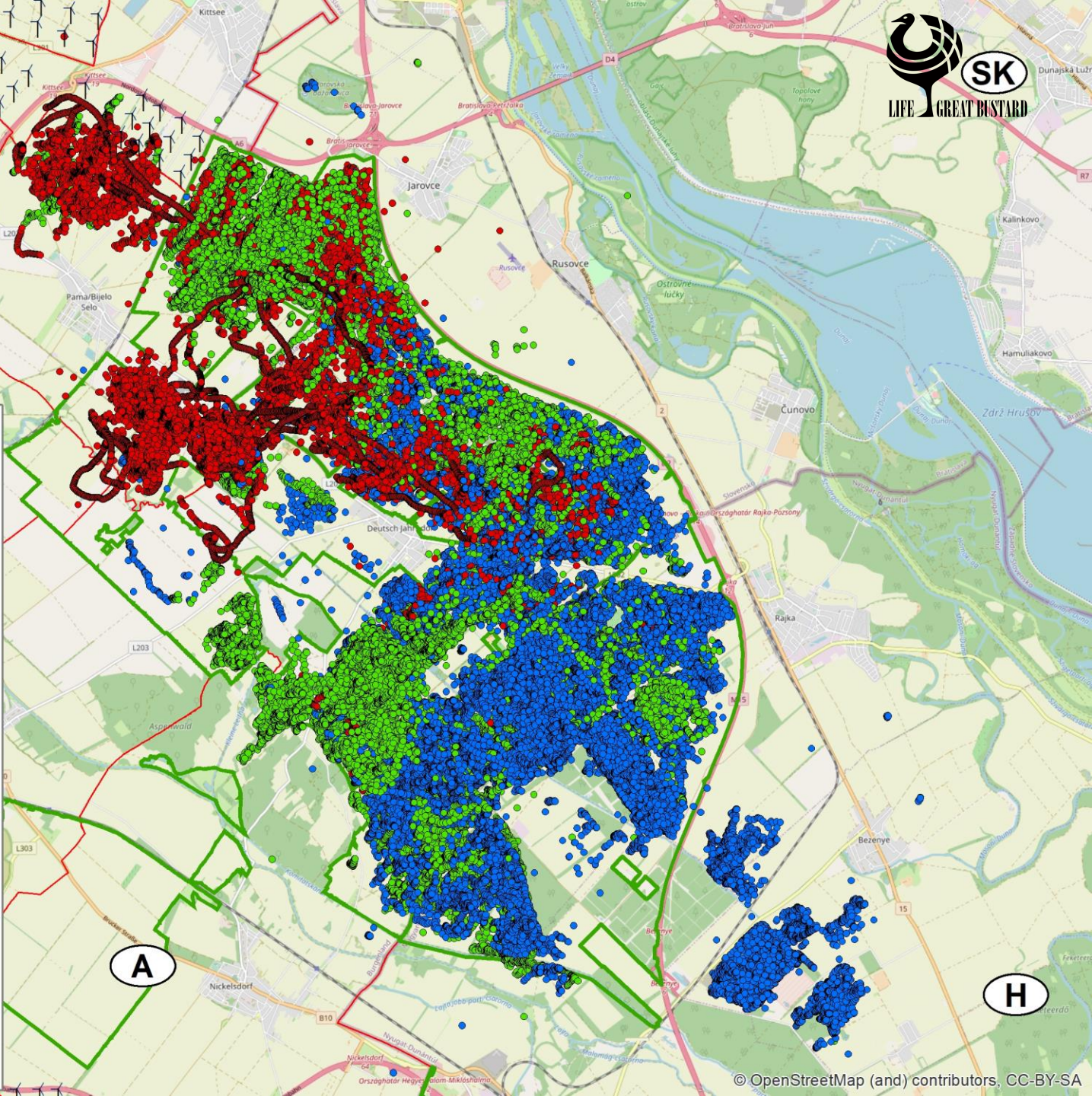
MITGLIED DES FACHVERBANDES



LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Great Bustard Telemetry Flight and Walking Movements Rajka 01

- Flight movements in the period
25/7/2018 to 7/3/2019
- Walking movements in the period
25/7/2018 to 7/3/2019



1:15,000



Map preparation:
TB Raab GmbH



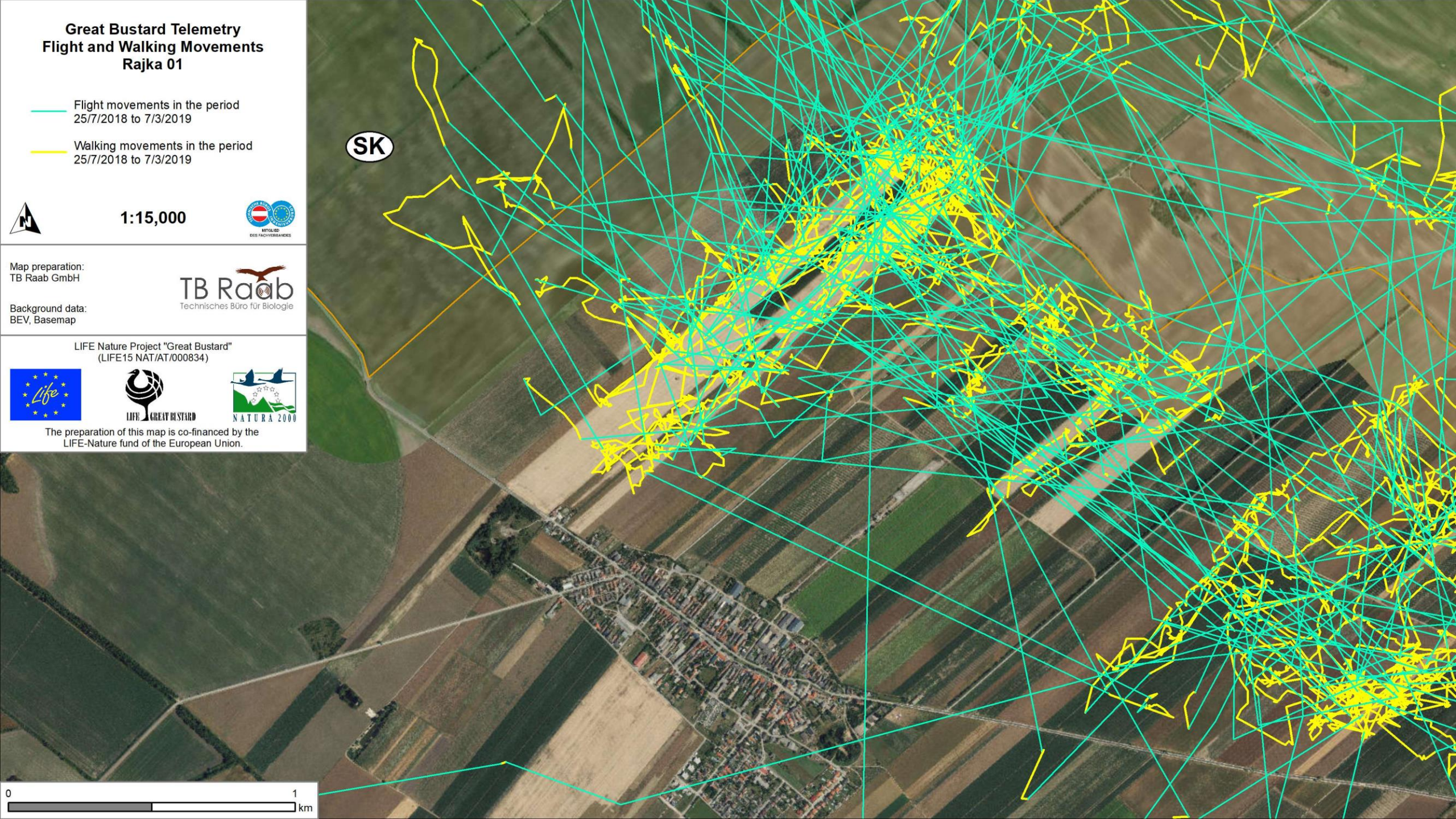
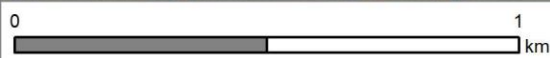
Background data:
BEV, Basemap

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.

SK



Great Bustard Telemetry Telemetry points Kittsee 01

Telemetry points in the period
2/8/2021 to 3/1/2023



1:40,000



Map preparation:
TB Raab GmbH

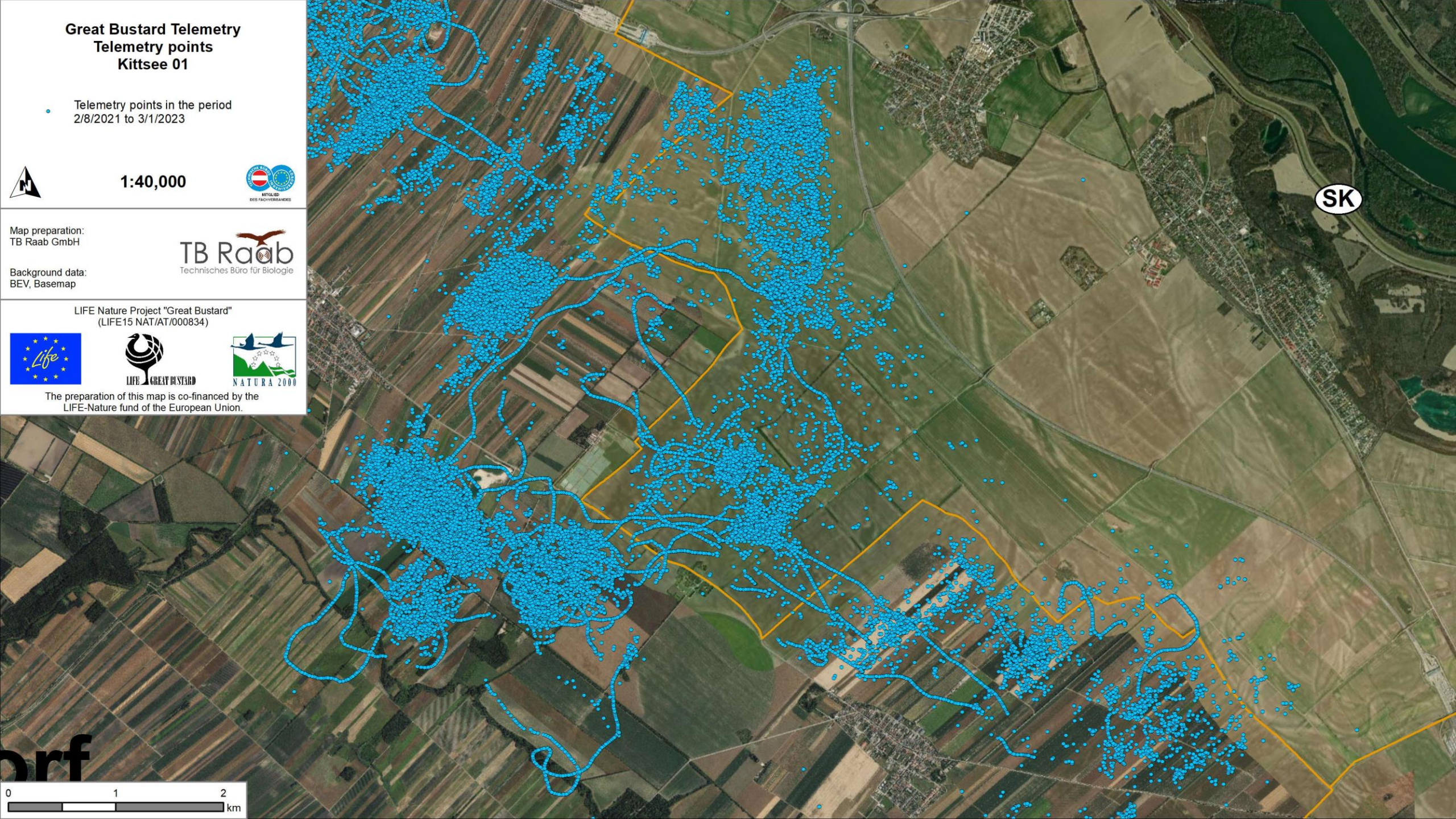


Background data:
BEV, Basemap

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)





The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.







Overview of the Great Bustard "ÖPUL" project areas 2023 and SPAs in Austria

 "ÖPUL" project areas 2023 (14,966 ha)

 Project-Sub-Area = Special Protection Area (SPA)

 Special Protection Area (SPA)

 federal state border

 national border

 1:1,000,000



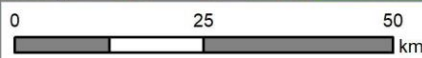
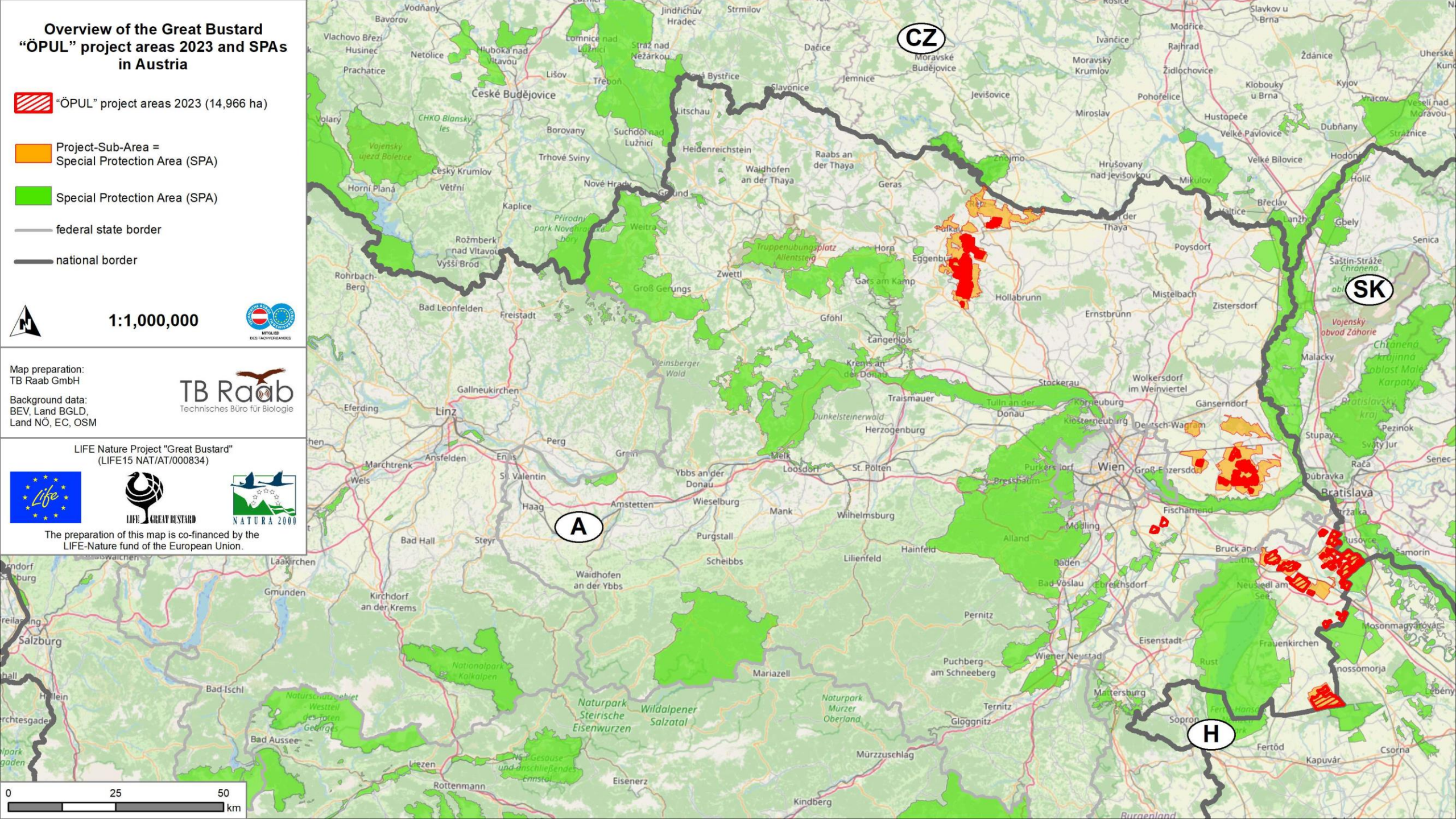
Map preparation:
TB Raab GmbH
Background data:
BEV, Land BGLD,
Land NO, EC, OSM




LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/00834)




The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.





Great Bustard "ÖPUL" project areas 2023 and SPAs in Austria


 "ÖPUL" project areas 2023

 Project-Sub-Area =
Special Protection Area (SPA)

 Special Protection Area (SPA)

 federal state border

 national border

 1:400,000



Map preparation:
TB Raab GmbH

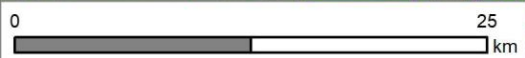
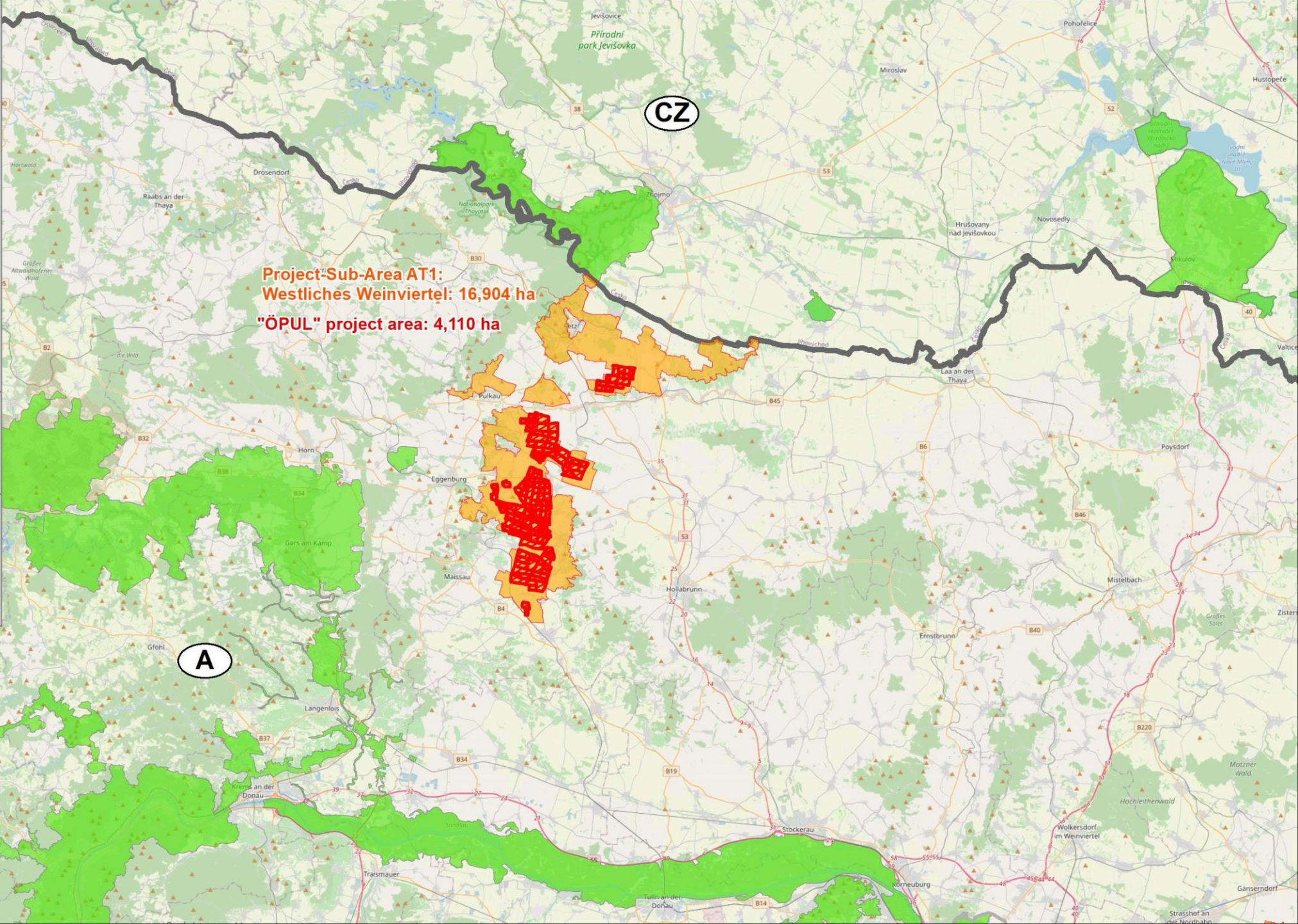


Background data:
BEV, Land BGLD,
Land NO, EC, OSM

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Great Bustard "ÖPUL" project areas 2023 and SPAs in Austria

-  "ÖPUL" project areas 2023
-  Project-Sub-Area =
Special Protection Area (SPA)
-  Special Protection Area (SPA)
-  federal state border
-  national border

 **1:400,000**



Map preparation:
TB Raab GmbH

Background data:
BEV, Land BGLD,
Land NÖ, EC, OSM

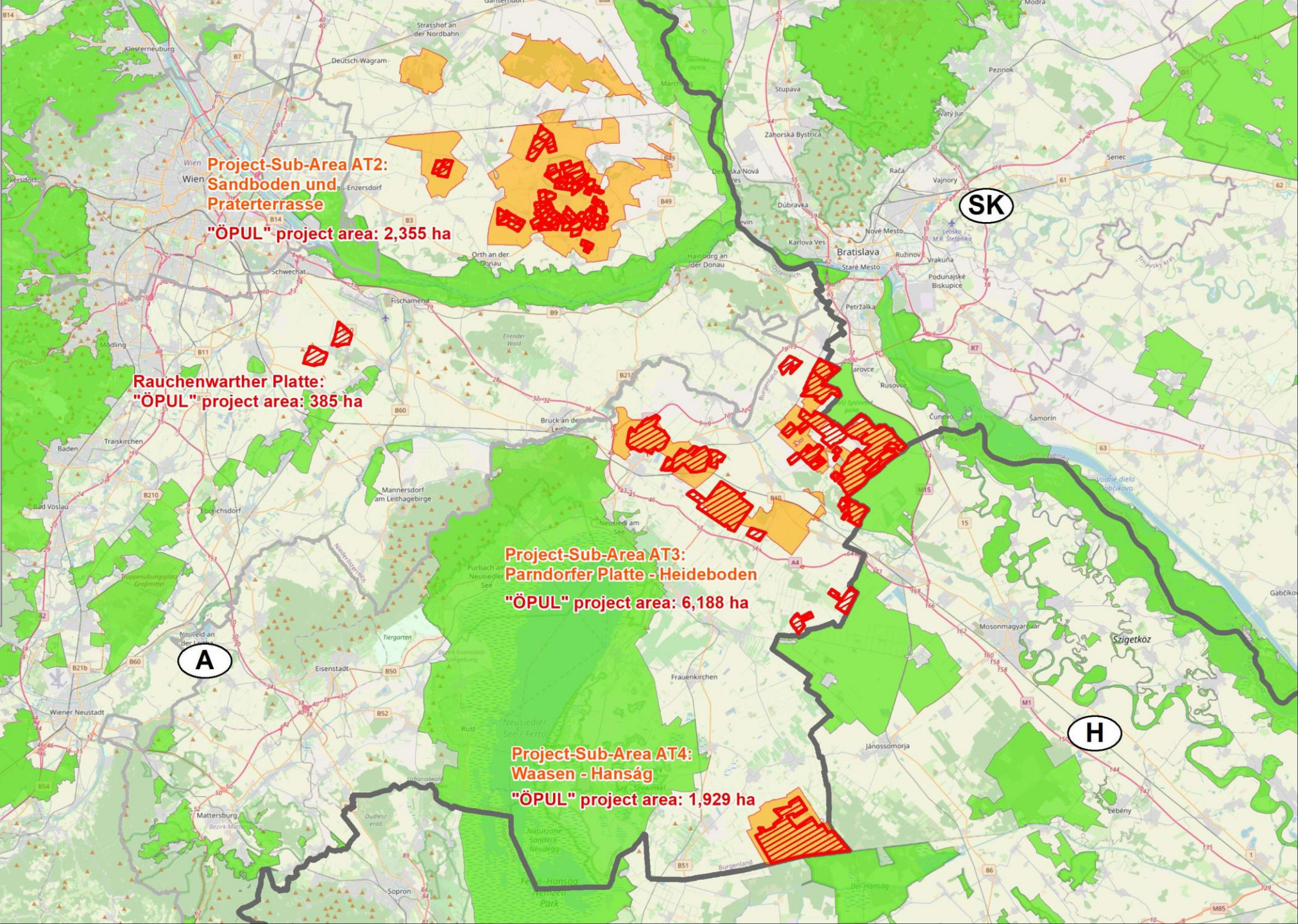


LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)





The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.

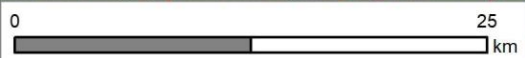


**Project-Sub-Area AT2:
Sandboden und
Präterterrasse**
"ÖPUL" project area: 2,355 ha

Rauchenwarther Platte:
"ÖPUL" project area: 385 ha

**Project-Sub-Area AT3:
Parndorfer Platte - Heideboden**
"ÖPUL" project area: 6,188 ha

**Project-Sub-Area AT4:
Waasen - Hanság**
"ÖPUL" project area: 1,929 ha



**Trappenbrachen und
weitere Trappenschutzflächen
im Projektgebiet
AT3 Parndorfer Platte - Heideboden
Stand: 2021**


 bestehende Windkraftanlage

 Trappenbrache

 Mähwiese

 Winterräsung

 Projektgebiet
AT3 Parndorfer Platte - Heideboden

 Vogelschutzgebiet,
Europaschutzgebiet

 Staatsgrenze



1:90,000



Map preparation:
TB Raab GmbH

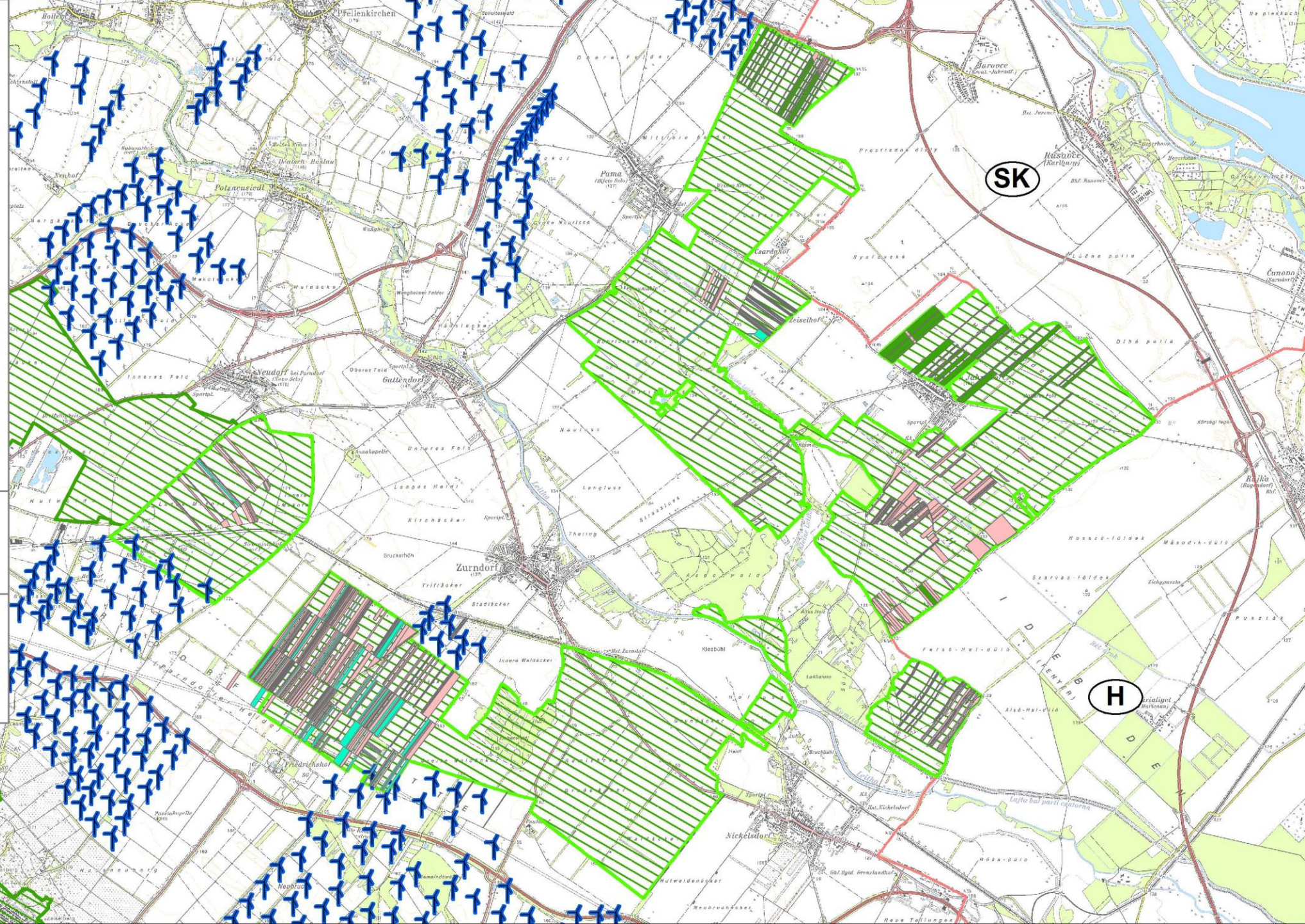
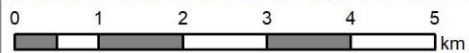
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC







LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by
the LIFE-Nature fund of the European Union.



Trappenbrachen im Bereich Parndorfer Platte - Heideboden

-  bestehende Windkraftanlage
-  mögliche neue Trappenbrache
(220 Flächen mit einer Gesamtfläche von 56,8 ha)
-  bestehende Trappenbrache
(496 Flächen mit einer Gesamtfläche von 681,1 ha)
-  Planungsbereich ÖPUL23
(6.188,4 ha)
-  Vogelschutzgebiet,
Europaschutzgebiet
-  Staatsgrenze



1:120,000



Map preparation:
TB Raab GmbH

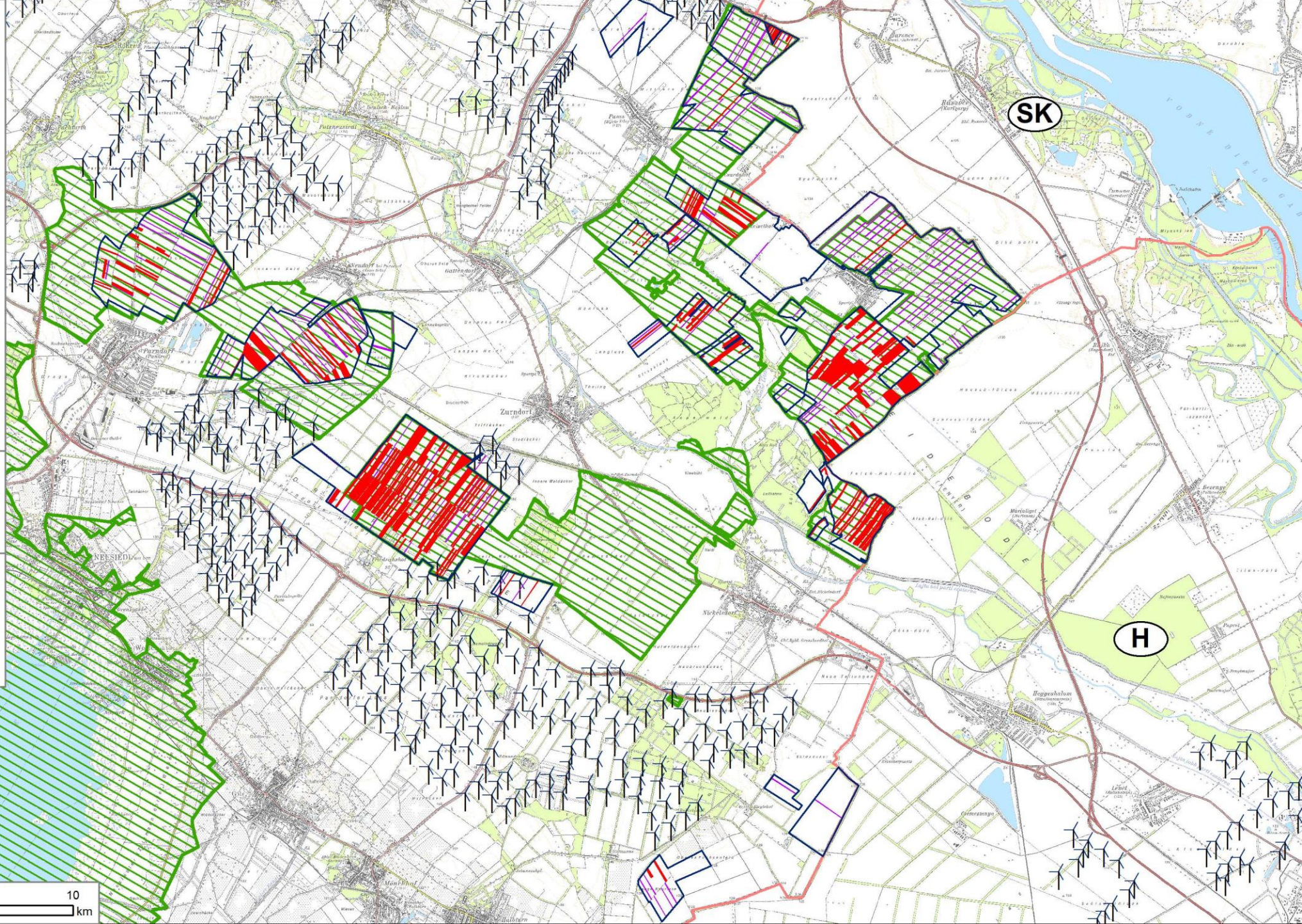
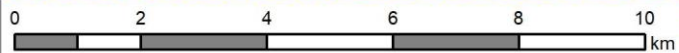
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC










LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

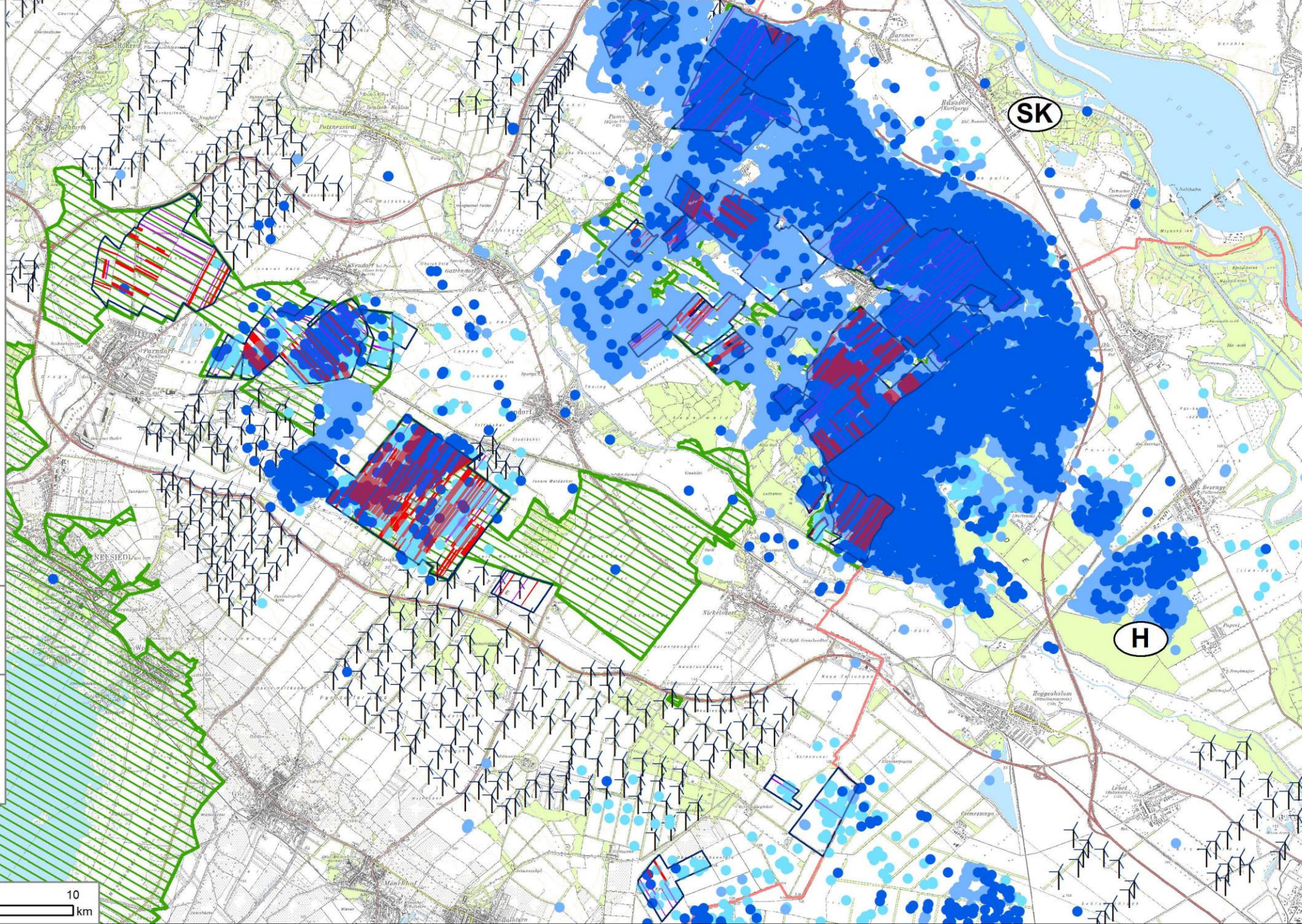


The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Trappenbrachen im Bereich Parndorfer Platte - Heideboden

-  bestehende Windkraftanlage
-  Beobachtungen der Großtrappe im Zeitraum 27/7/2016 bis 10/11/2022
-  Telemetriennachweis der Großtrappe im Zeitraum 25/7/2018 bis 3/1/2023
-  Beobachtungen der Großtrappe im Zeitraum 3/1/2008 bis 20/7/2016
-  mögliche neue Trappenbrache (220 Flächen mit einer Gesamtfläche von 56,8 ha)
-  bestehende Trappenbrache (496 Flächen mit einer Gesamtfläche von 681,1 ha)
-  Planungsbereich ÖPUL23 (6.188,4 ha)
-  Vogelschutzgebiet, Europaschutzgebiet
-  Staatsgrenze



1:120,000



Map preparation:
TB Raab GmbH

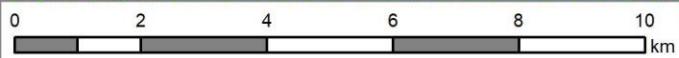
TB Raab
Technisches Büro für Biologie

Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)







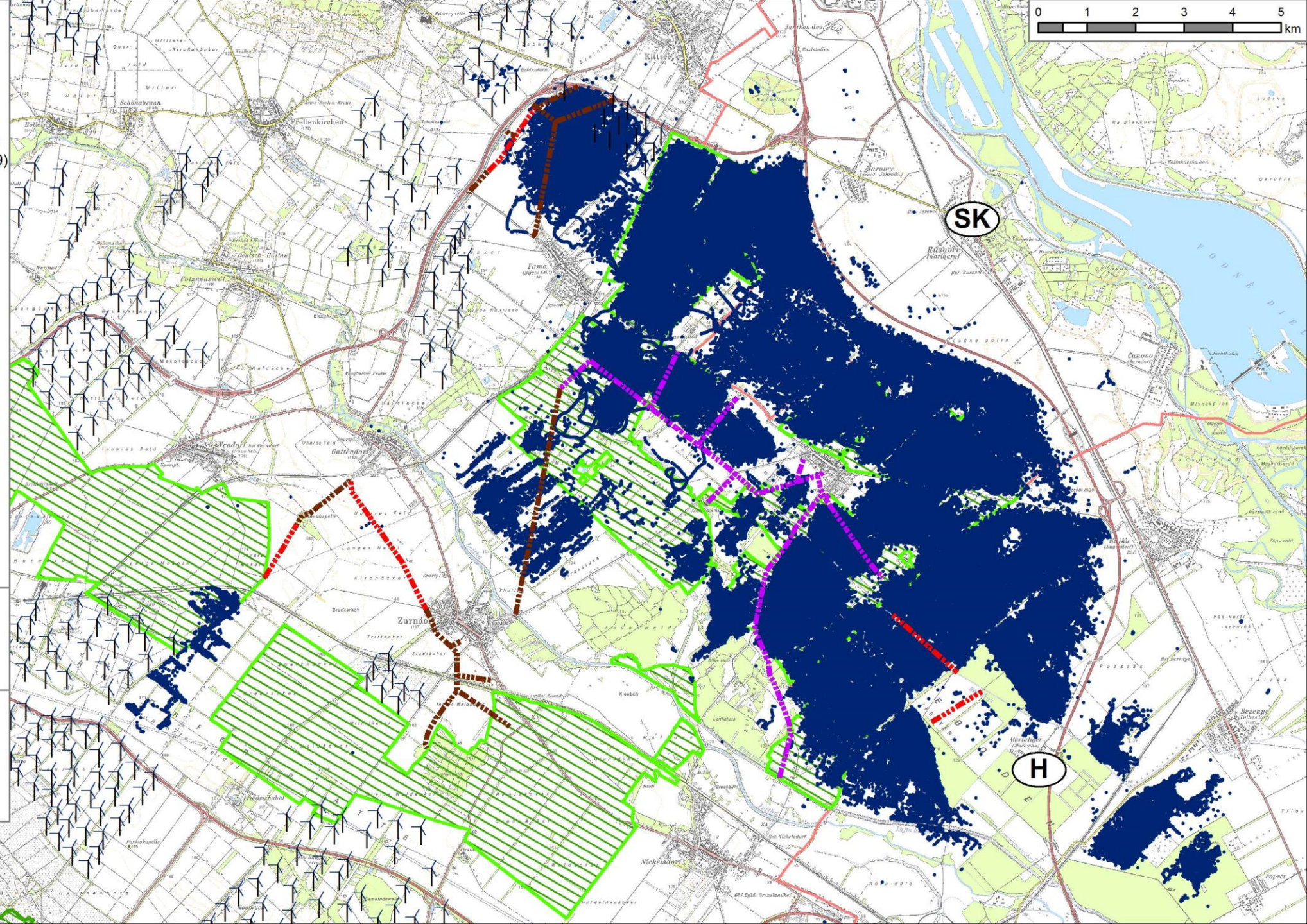
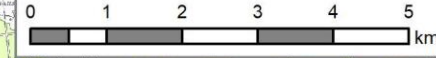
The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



AT3 Parndorfer Platte - Heideboden Overview with Great Bustard telemetry data

Telemetry point of Great Bustard in the period 25/7/2018 to 8/9/2023 (map: data points of 18 tagged Great Bustards, total data points: 2,307,499)

-  20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" 2016 - 2023 from November 2017 to January 2018 (ca. 1.6 km) and from June 2020 to December 2020 (ca. 7.4 km)
-  20 kV power line, which was additionally removed in the period 2016 - 2023 from October 2016 to December 2020 (ca. 19.9 km)
-  20 kV power line, which was removed in the course of the LIFE Project between 2005 and 2010 and the LIFE+ Project between 2010 and 2015 (19.7 km)
-  Project-Sub-Area AT3 Parndorfer Platte - Heideboden



 **1:100,000** 

Map preparation:
TB Raab GmbH


Technisches Büro für Biologie

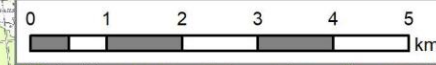
Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)

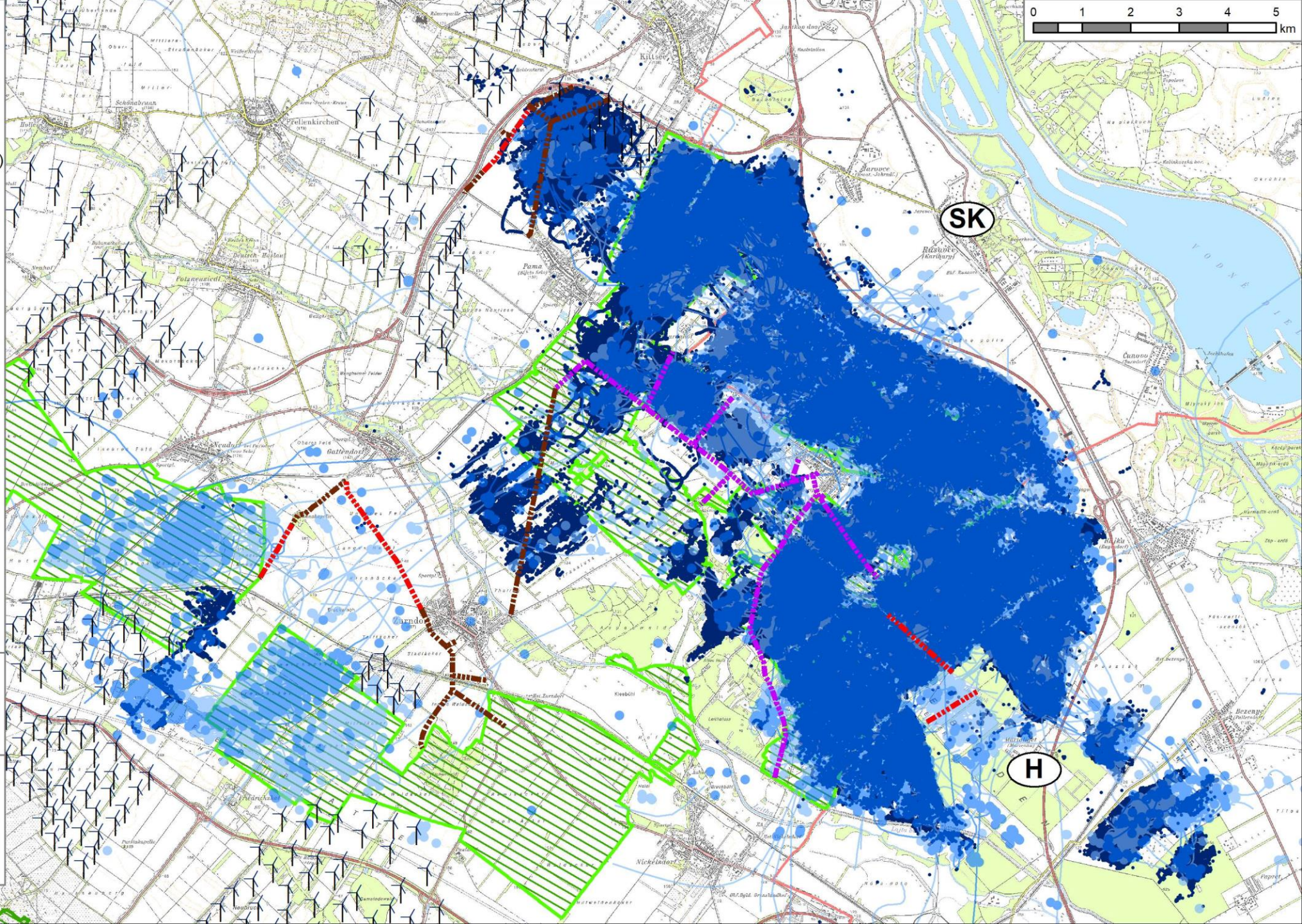
The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.

AT3 Parndorfer Platte - Heideboden Overview with Great Bustard observations



Telemetry point of Great Bustard in the period 25/7/2018 to 8/9/2023 (map: data points of 18 tagged Great Bustards, total data points: 2,307,499)

- Distribution of Great Bustard in the period 25/7/2016 to 7/8/2023 (10,120 data points)
- Distribution of Great Bustard in the period 4/7/2005 to 20/7/2016 (22,710 data points)
- 20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" 2016 - 2023 from November 2017 to January 2018 (ca. 1.6 km) and from June 2020 to December 2020 (ca. 7.4 km)
- 20 kV power line, which was additionally removed in the period 2016 - 2023 from October 2016 to December 2020 (ca. 19.9 km)
- 20 kV power line, which was removed in the course of the LIFE Project between 2005 and 2010 and the LIFE+ Project between 2010 and 2015 (19.7 km)



1:100,000

Map preparation:
TB Raab GmbH





Background data:
BEV, Land BGLD, EC


LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)


The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.


AT3 Parndorfer Platte - Heideboden Overview with Great Bustard observations


Dead individual of Great Bustard
in the period 1/6/2002 to 7/8/2023:


-  collision, power line
-  other causes
-  predation
-  natural death


 Breeding places of Great Bustard in the period 4/2005 to 7/2022

 Distribution of Great Bustard in the period 25/7/2016 to 7/8/2023 (10,120 data points)

 Distribution of Great Bustard in the period 4/7/2005 to 20/7/2016 (22,710 data points)

 20 kV power line, which was removed in the course of the LIFE Project "Great Bustard" 2016 - 2023 from November 2017 to January 2018 (ca. 1.6 km) and from June 2020 to December 2020 (ca. 7.4 km)

 20 kV power line, which was additionally removed in the period 2016 - 2023 from October 2016 to December 2020 (ca. 19.9 km)

 20 kV power line, which was removed in the course of the LIFE Project between 2005 and 2010 and the LIFE+ Project between 2010 and 2015 (19.7 km)



Map preparation:
TB Raab GmbH

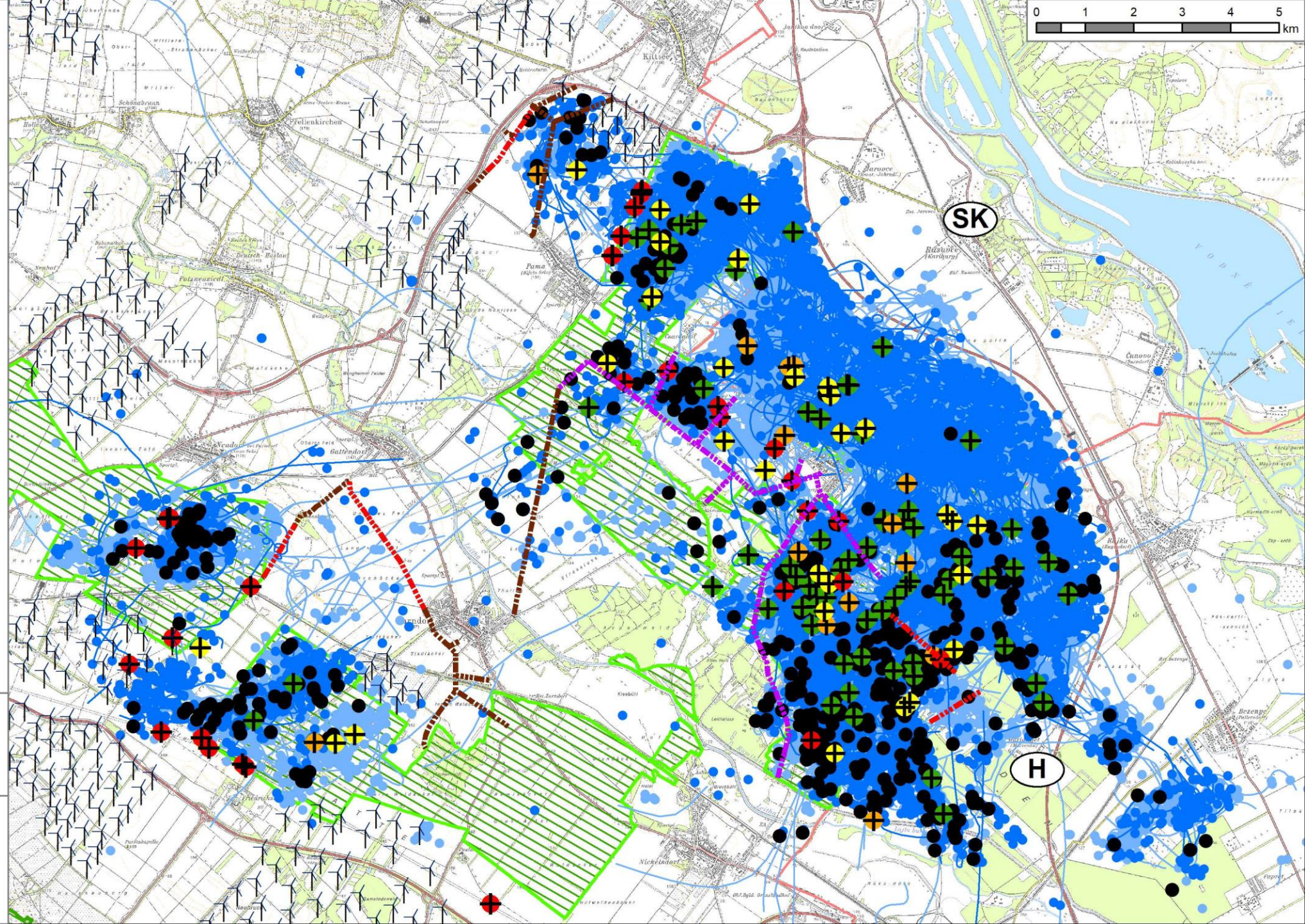


Background data:
BEV, Land BGLD, EC

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)








The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Action AT D.8
Monitoring the effect
of the power line marking
in AT1 WWV and AT2 SPT

in the period 1/6/2002 to 30/6/2023

-  collision with power line (20 individuals)
 -  predation (11 individuals)
 -  natural death (26 individuals)
 -  other causes (10 individuals)
-  Project-Sub-Areas used for the analysis of the findings of dead Great Bustards



1:500,000



Map preparation:
TB Raab GmbH

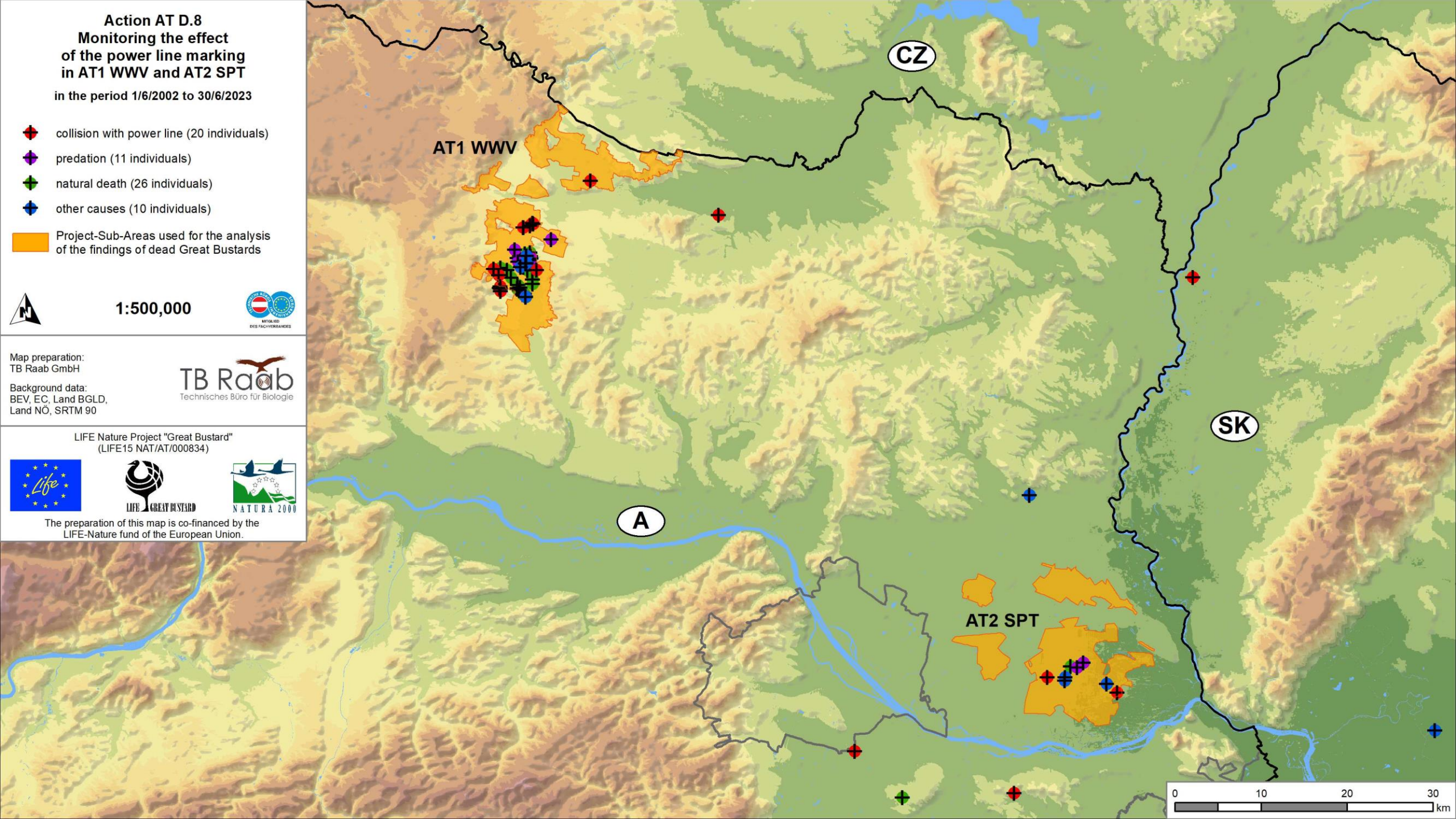


Background data:
BEV, EC, Land BGLD,
Land NO, SRTM 90






LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Action AT D.8
Monitoring the effect
of the power line marking
in AT3 PPH and AT4 WHA
in the period 1/6/2002 to 6/9/2023

-  collision with power line (42 individuals)
 -  predation (30 individuals)
 -  natural death (74 individuals)
 -  other causes (17 individuals)
-  Project-Sub-Areas used for the analysis of the findings of dead Great Bustards



1:300,000



Map preparation:
TB Raab GmbH

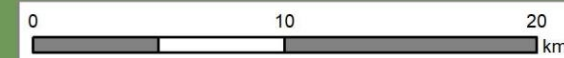
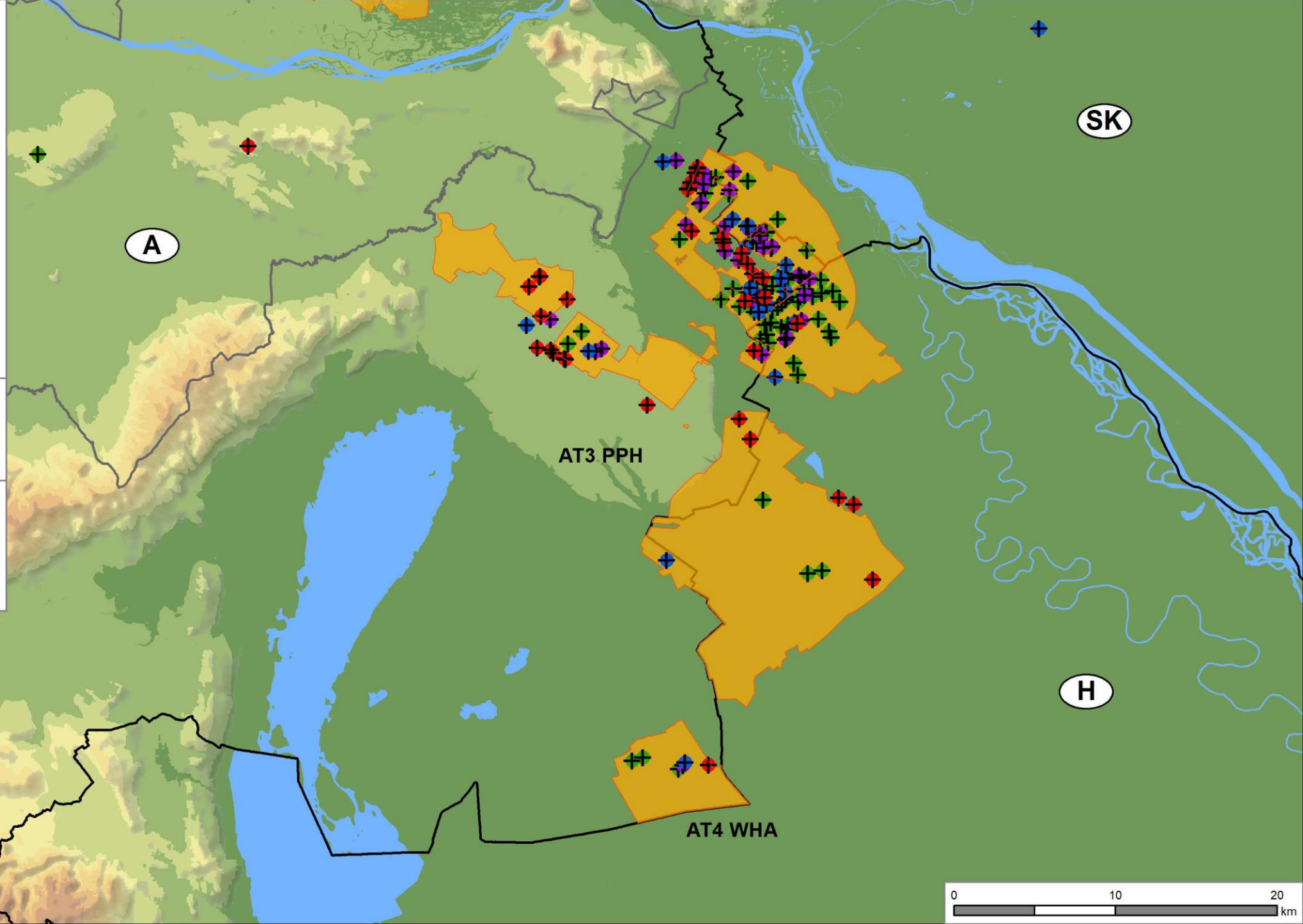
TB Raab
Technisches Büro für Biologie

Background data:
BEV, EC, Land BGLD,
Land NO, SRTM 90

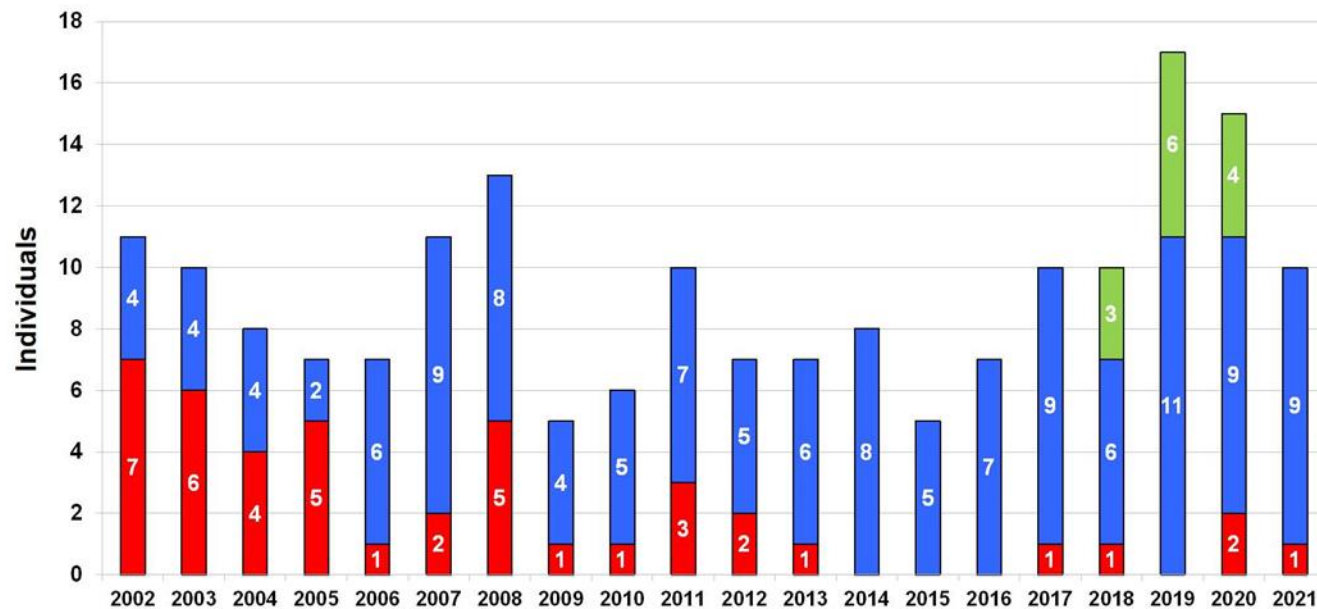
LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the
LIFE-Nature fund of the European Union.



Monitoring the effect of the power line marking



Dead individuals of the West-Pannonian population of Great Bustard separated by years

in the period 6/2002 to 5/2022, while year is the period from June, 1st to May, 31st of the following year

- other causes of death (individuals with logger)
- other causes of death
- death caused by collision with power line

Data source: Raab et al. (2010) and data from R. Raab and P. Spakovszky

Graphic preparation:
TB Raab GmbH

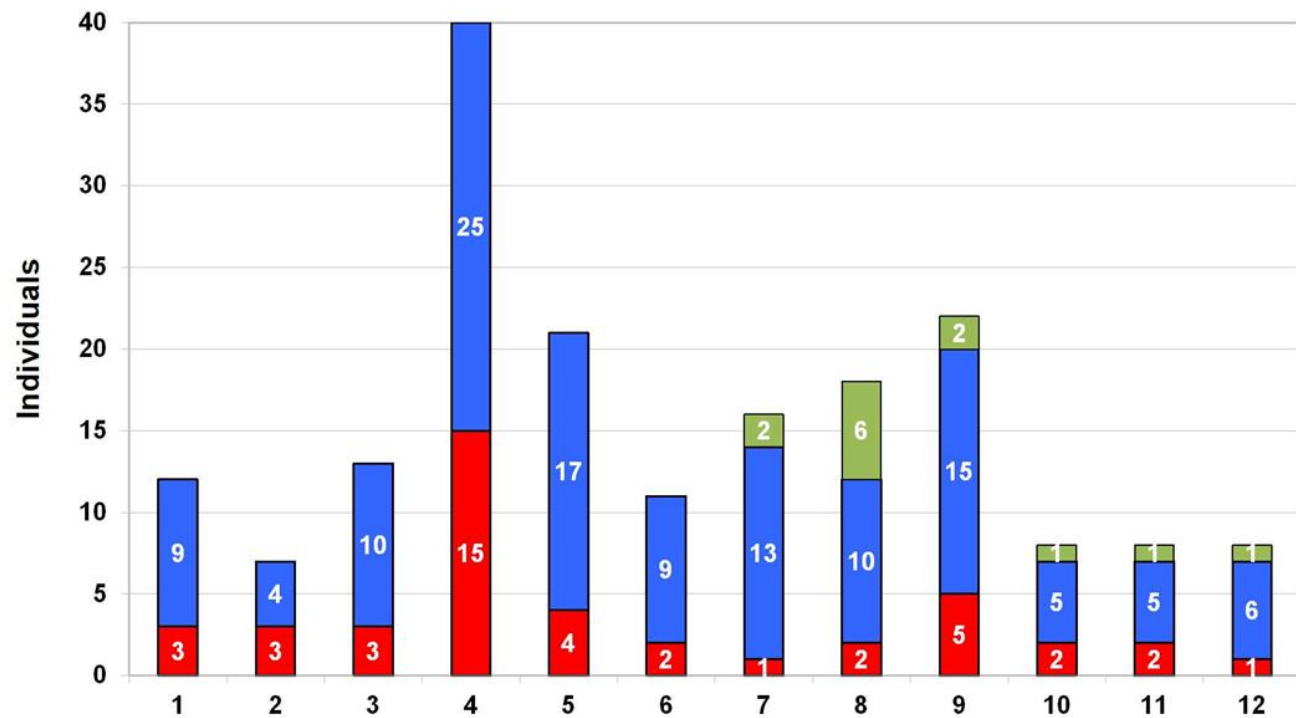


LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.

Monitoring the effect of the power line marking



Dead individuals of the West-Pannonian population of Great Bustard separated by months

in the period 6/2002 to 5/2022

- other causes of death (individuals with logger)
- other causes of death
- death caused by collision with power line

Data source: Raab et al. (2010) and data from R. Raab and P. Spakovszky

Graphic preparation:
TB Raab GmbH



LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Public relations of the 3 LIFE Projects in Austria



- From 2005 to 2023 an information- and observation point as well as 5 observation towers were built for the observation of the Great Bustard, which are still used every year by several thousand visitors and therefore are a visible long-term sign of the two LIFE Projects for the protection of the Great Bustards.



Large number of different actions:

- public relations
- Trainings
- Excursions
- observation towers
- information boards





Great Bustard *Otis tarda*

40 years of the Birds Directive: a European success story

By the end of the 20th Century, the Austrian population of the Great Bustard had fallen to just 60 individuals. Large-scale agricultural intensification and collisions with overhead power lines had all but decimated the population here. However, with the launch of a series of EU LIFE funded projects, and the introduction of a major 'bustard friendly' agri-environment scheme, the Austrian population has grown again. It now stands at some 320 individuals and efforts are underway to promote its recovery throughout Central Europe.



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LIFE

28. April · 🌐

👍 Seite gefällt mir

How to safeguard and protect a bird species? 🦅 The #Lifeproject Großtrappe Otis tarda - Rotmilan *Milvus milvus* und Co. knows the answer! A joint effort by 🇷🇺🇭🇺🇷🇺 teams to preserve the Great Bustard in Central Europe 🇪🇺 Nature knows no borders! Learn more ➡️ <https://bit.ly/2XAJMj6> #EUelections2019 #EP2019 #EUprotects

Europäische Kommission - Vertretung in Österreich Európai Bizottság Magyarországi Képviselőt Zastúpenie Európskej komisie na Slovensku EU Environment Übersetzung anzeigen



European Commission

29. Mai 2017 · 🌐

👍 Seite gefällt mir

25 years ago the EU's LIFE for the environment and climate action was born. More than 4.300 nature conservation, green technology and climate action projects have been co-funded since then.

One of them is the LIFE Great Bustard cross-border project: In Austria and Hungary, NGOs, regional authorities and utility companies join forces to save the rare bird from extinction, for example, by putting power lines underground: <http://www.grosstrappe.at/en/homepage.html>

#LIFE25NATURA #LIFE_programme #investEU #EUGreenWeek
Übersetzung anzeigen



LIFE

21. Januar · 🌐

👍 Seite gefällt mir

Several LIFE projects have worked with stakeholders to improve semi-natural grasslands and stop birds 🐦🐦 colliding with energy infrastructure in central Europe. The spread of intensive farming 🚜 and power lines ⚡ led to a rapid decline of the great bustard (*Otis tarda*), but #LIFEproject Great Bustard 🇷🇺🇭🇺 has undertaken efforts to protect and enlarge their habitat. High-voltage power lines have been marked to make them more visible to flying birds ➡️ <https://europa.eu/!BJ79Hd>

Großtrappe *Otis tarda* - Rotmilan *Milvus milvus* und Co. Land Burgenland Unser Niederösterreich ELMŰ - ÉMÁSZ Bükki Nemzeti Park Igazgatóság Für ein nachhaltiges Österreich Magyarország Kormány Magyarországi Képviselete Europäische Kommission - Vertretung in Österreich EU Environment Übersetzung anzeigen





Aussichtsturm "LIFE+ Großtrappe Zurndorf"

Dieses Projekt wurde mit Unterstützung des Bundesministeriums für Land- und Forstwirtschaft, Umwelt und Wasserwirtschaft, der Länder Niederösterreich und Burgenland und der Europäischen Union realisiert.






www.grosstrappe.at

Logo of the LIFE program and logos of partner organizations: NO Netz, NETZ BURGENLAND, APG, and others.



Observation Towers in the Project-Sub-Areas in Austria

-  Observation tower
-  Observation and Information Point
-  Project-Sub-Area



Map preparation:
TB Raab GmbH

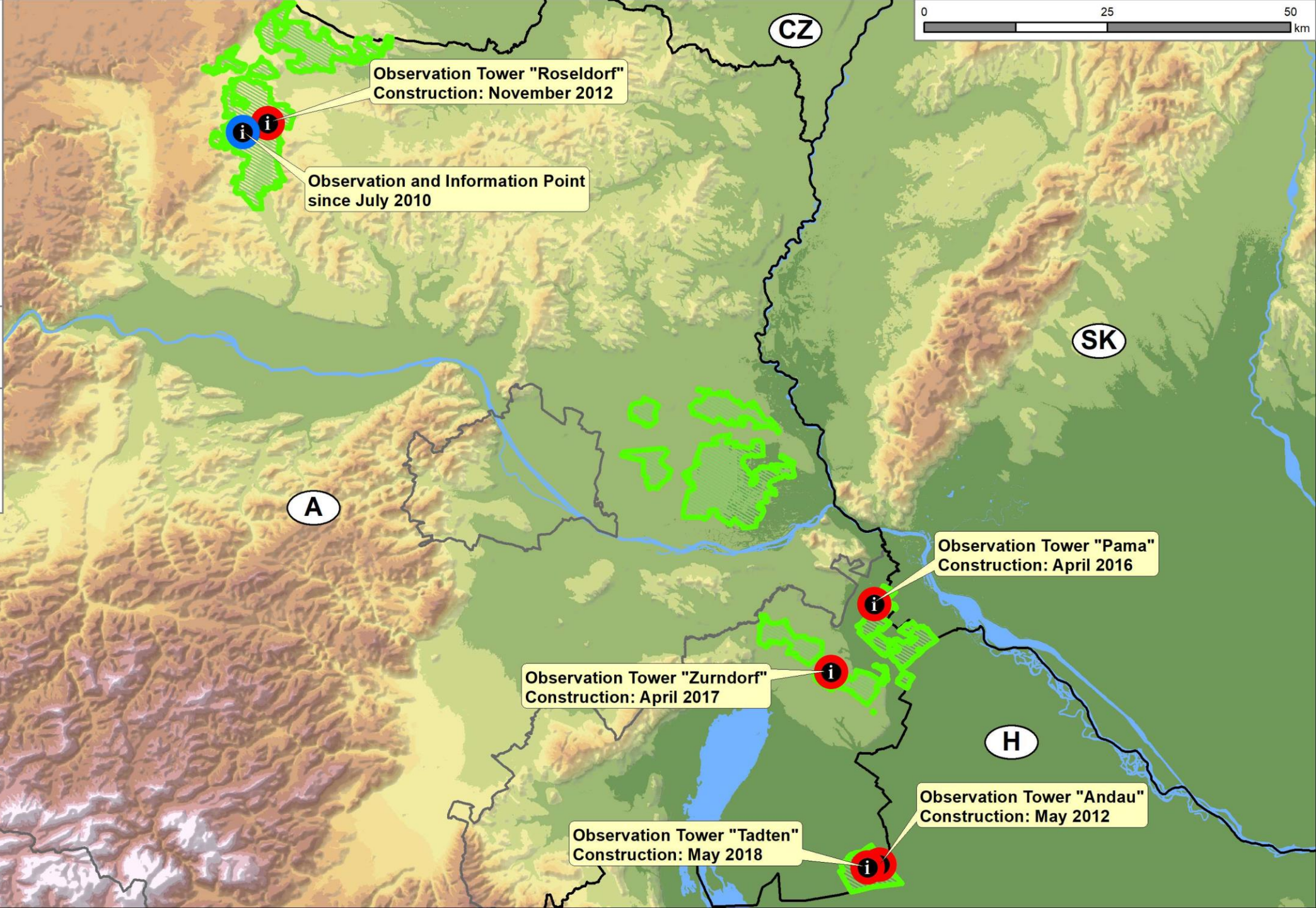


Background data:
BEV, EC, Land BGLD,
Land NO, SRTM 90

LIFE Nature Project "Great Bustard"
(LIFE15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.



Observation Tower "Roseldorf"
Construction: November 2012

Observation and Information Point
since July 2010

Observation Tower "Pama"
Construction: April 2016

Observation Tower "Zurndorf"
Construction: April 2017

Observation Tower "Andau"
Construction: May 2012

Observation Tower "Tadtten"
Construction: May 2018



Numerous television spots, radio and newspapers or magazines and press conferences





Within the Cross-border protection of the Great Bustard in Austria more than 700 people (550 farmers and more than 100 hunters) are involved in the Great Bustard conservation projects.



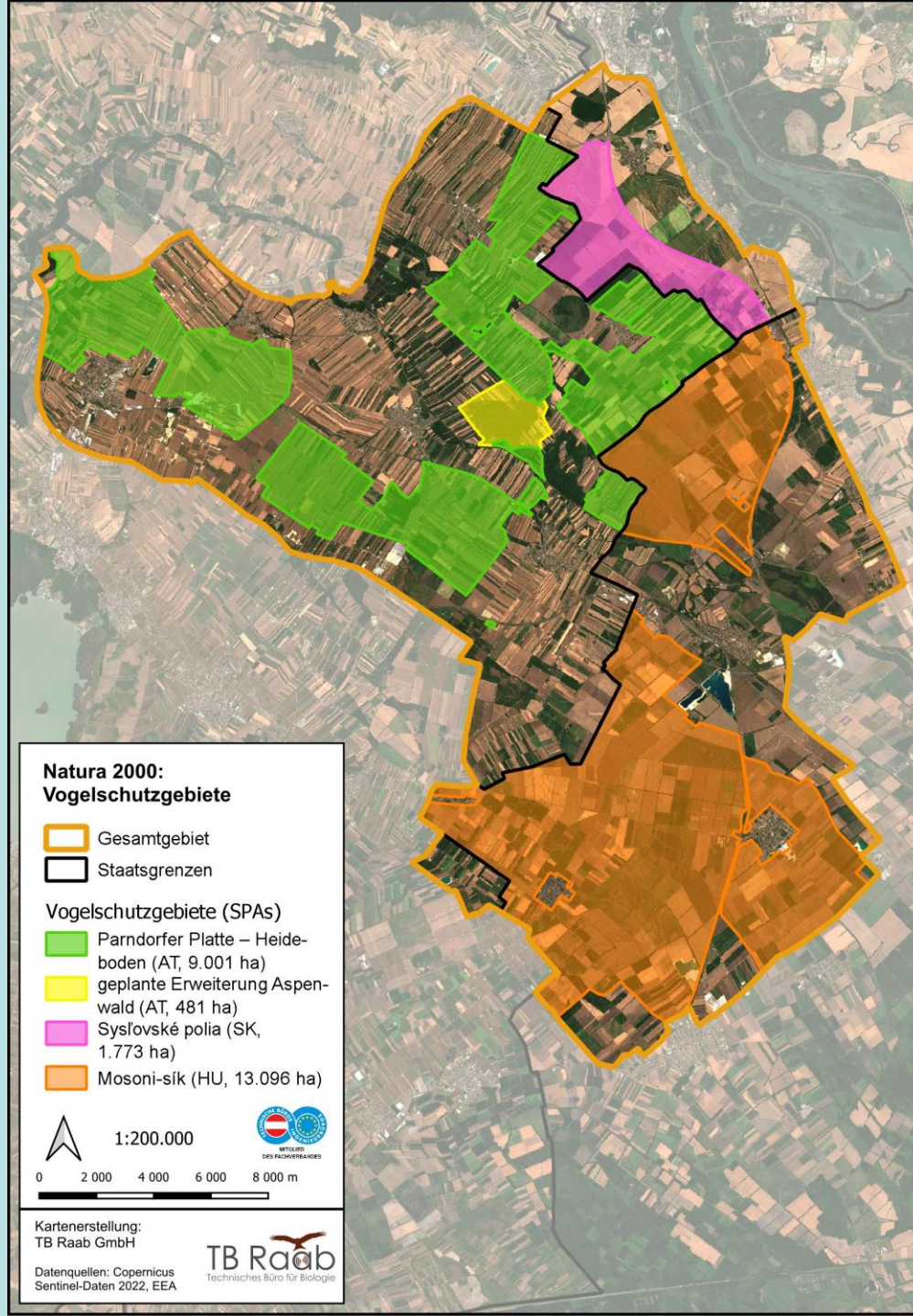
Lass uns spielen!

Krabble durch den Zieselstunnel oder leg dich in den Adlerhorst. Klettere auf meinen Rücken und rutsche hinunter! Hier kannst du nach Herzenslust herumtollen, bevor du dich auf die Suche nach den Naturschätzen des Westlichen Weinviertels begibst. Mit etwas Glück kannst du auf deinem Weg ein paar von uns entdecken und beobachten!



Konzeption und Herstellung: grossrapp.at
Illustration: K. Kitzinger





**Natura 2000:
Vogelschutzgebiete**

-  Gesamtgebiet
-  Staatsgrenzen

Vogelschutzgebiete (SPAs)

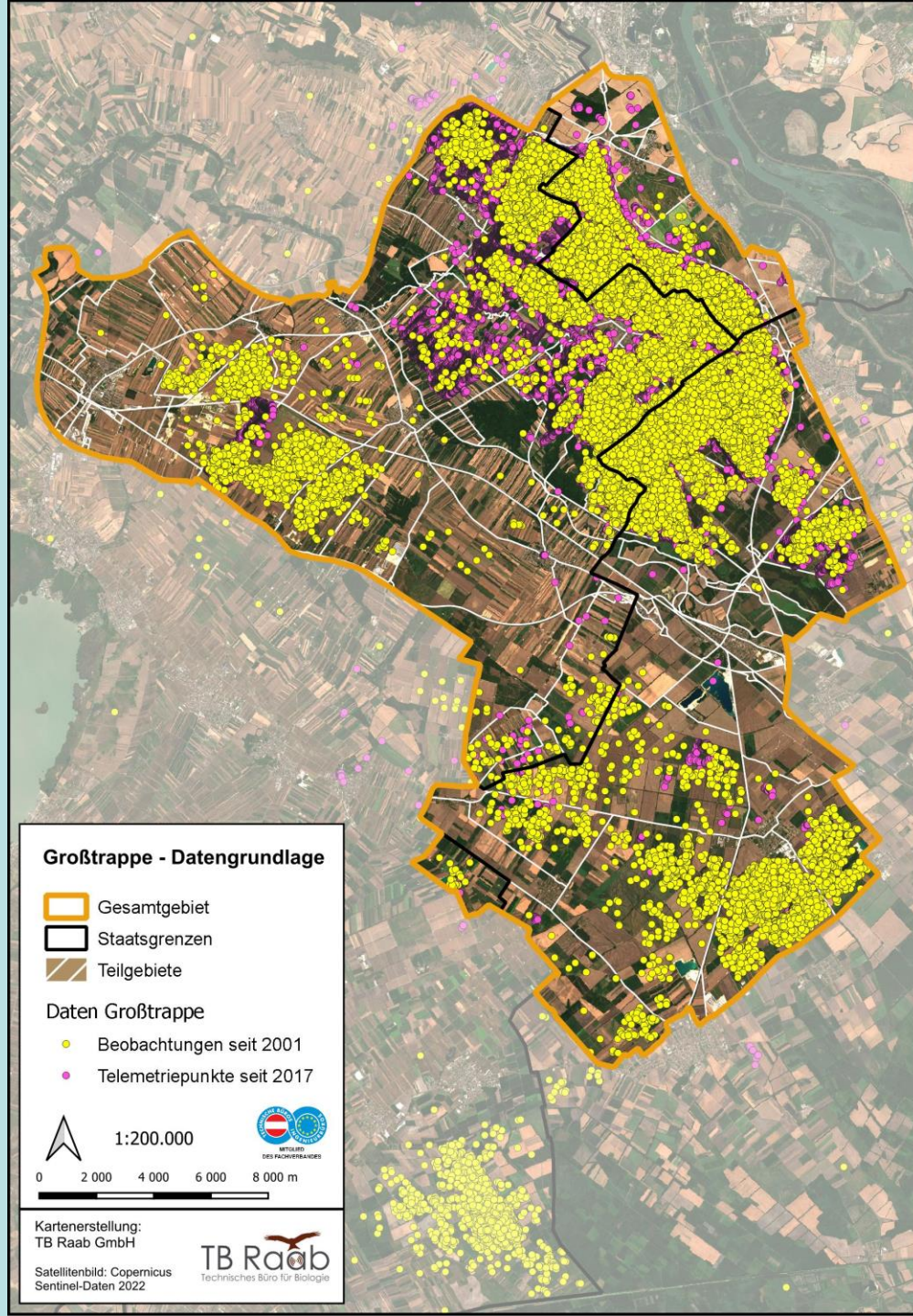
-  Parndorfer Platte – Heideboden (AT, 9.001 ha)
-  geplante Erweiterung Aspenwald (AT, 481 ha)
-  Sysľovské polia (SK, 1.773 ha)
-  Mosoni-sík (HU, 13.096 ha)



Kartenerstellung:
TB Raab GmbH

Datenquellen: Copernicus
Sentinel-Daten 2022, EEA









Großtrappe - Datengrundlage


-  Gesamtgebiet
-  Staatsgrenzen
-  Teilgebiete

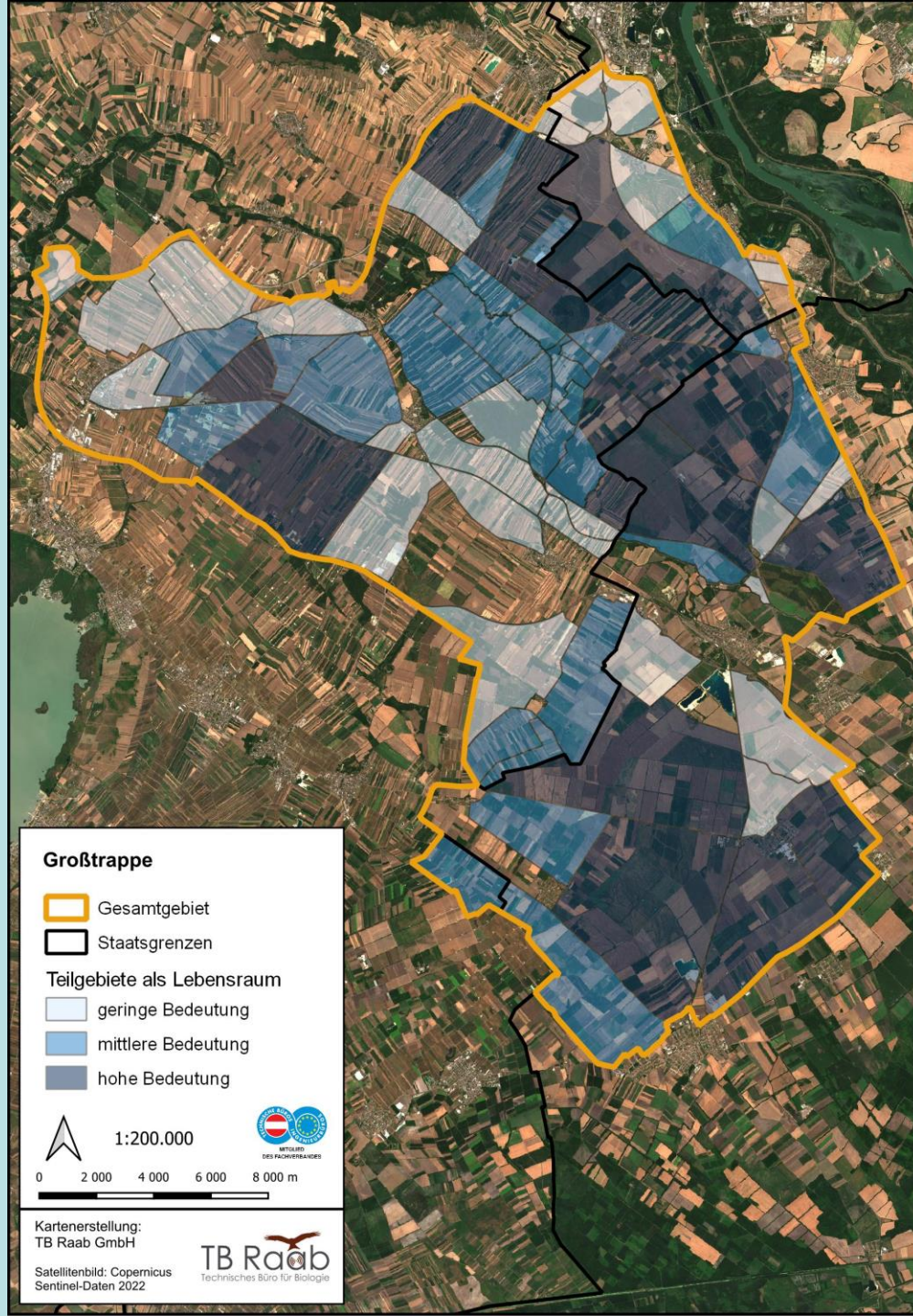
Daten Großtrappe

-  Beobachtungen seit 2001
-  Telemetrieunkte seit 2017

 1:200.000










Großtrappe

-  Gesamtgebiet
-  Staatsgrenzen

Teilgebiete als Lebensraum

-  geringe Bedeutung
-  mittlere Bedeutung
-  hohe Bedeutung



1:200.000



0 2 000 4 000 6 000 8 000 m

Kartenerstellung:
TB Raab GmbH

Satellitenbild: Copernicus
Sentinel-Daten 2022


Technisches Büro für Biologie





Measures of the other projects



- Only through the collaboration of farmers, hunters and local politicians within the conservation project Great Bustard it was possible to create suitable breeding sites and protect them against disturbance.





Measures of the other projects



- Farmers made use of the Austrian agri-environmental scheme “ÖPUL“ by cultivating on more than 5,000 ha special fields for the Great Bustard.



Promoting biodiversity

Creation of undisturbed, nutrient-rich structures



More than 5,500 ha habitat improves measures of the ÖPUL bustard protection areas

Basics Great Bustard protection – most important measures:

- Planting of greenery or cultivation of winter rapeseed at least twice
- No driving on the area if a Great Bustard clutch is found within a radius of 50 m
- Chopping or mowing of arable land only in consultation with the area manager
- Participation in the monitoring project and events



Mustard plant



Winter poppy



Winter wheat



Rapeseed



More than 5,500 ha habitat improves measures of the ÖPUL bustard protection areas

„Winter wheat“

- No driving or walking on winter wheat after April 20th until harvest
- Avoiding the application of rodenticides and eliminating field mice is prohibited



More than 5,500 ha habitat improves measures of the ÖPUL bustard protection areas

„Avoid corn“

- No cultivation of corn

Bonuses:

If you do not use pesticides (with the exception of Regulation No. 834/2007), an additional bonus will be paid



More than 5,500 ha habitat improves measures of the ÖPUL bustard protection areas

„Bustard fallow“

- No driving on the area except for management purposes
- Fertilization, the use of pesticides and the use of growth are prohibited
- Annual chopping between September 1st and October 15th
- An area of at least 10% and max. 20% of the should be not chopped or mowed for more structure on the field









More than 5,500 ha habitat improves measures of the ÖPUL bustard protection areas

„Green arable land“

- Green arable land with hay meadow or hay pasture use
- No fertilizer
- Delayed cutting time with earliest mowing on August 20th



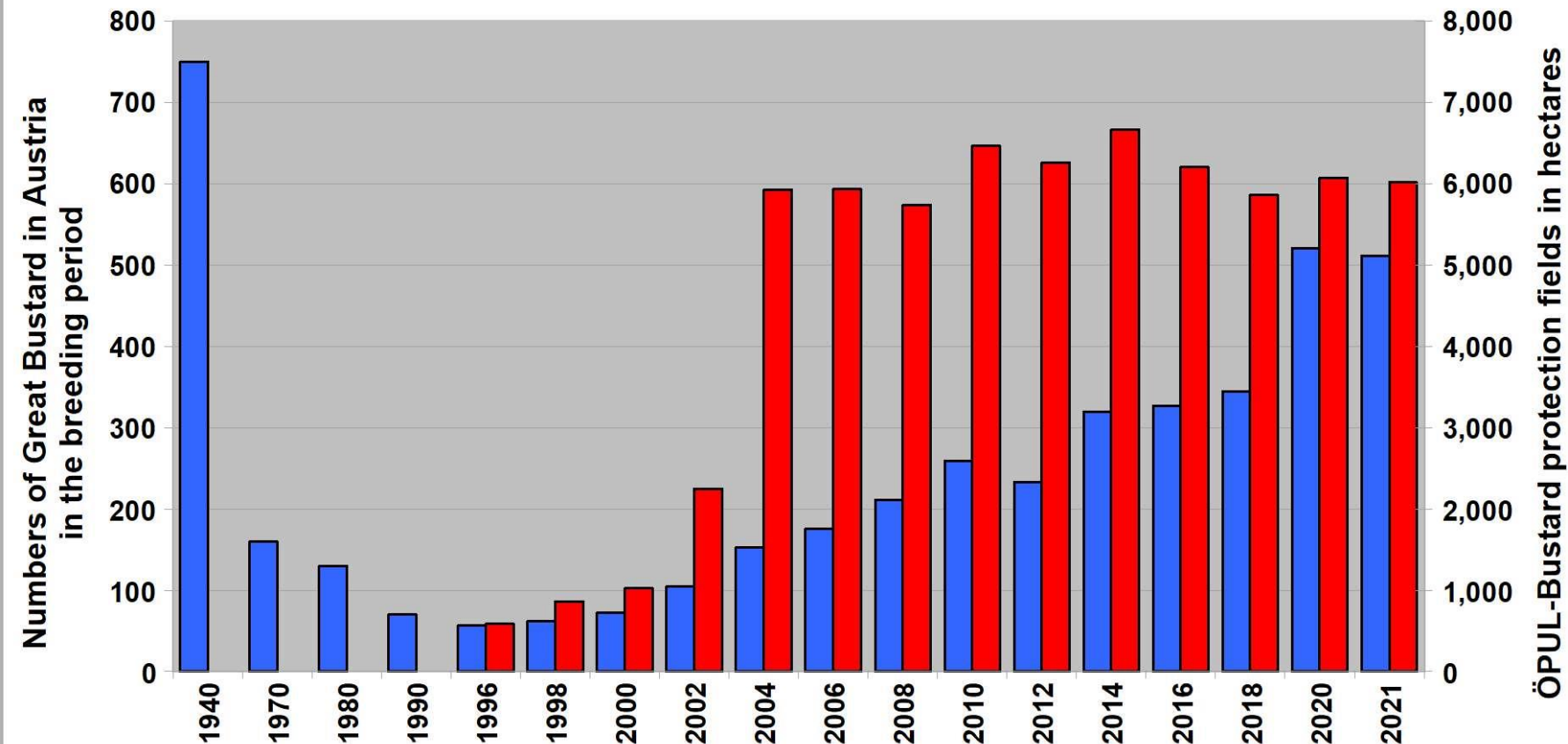








Numbers of the Austrian population of Great Bustard from 1940 to 2021 and the ÖPUL-Bustard protection fields



Size of the Austrian population of Great Bustard and the ÖPUL-Bustard protection fields

- Numbers of the Austrian population of Great Bustard
- ÖPUL-Bustard protection fields in hectares (including ÖPUL-meadows in Hanság)

Data source: Raab et al. (2010) and data from R. Raab and P. Spakovszky

Graphic preparation:
TB Raab GmbH



LIFE Nature Project "Great Bustard"
(LIFE 15 NAT/AT/000834)



The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.

Farmers ensure accessibility of food in winter

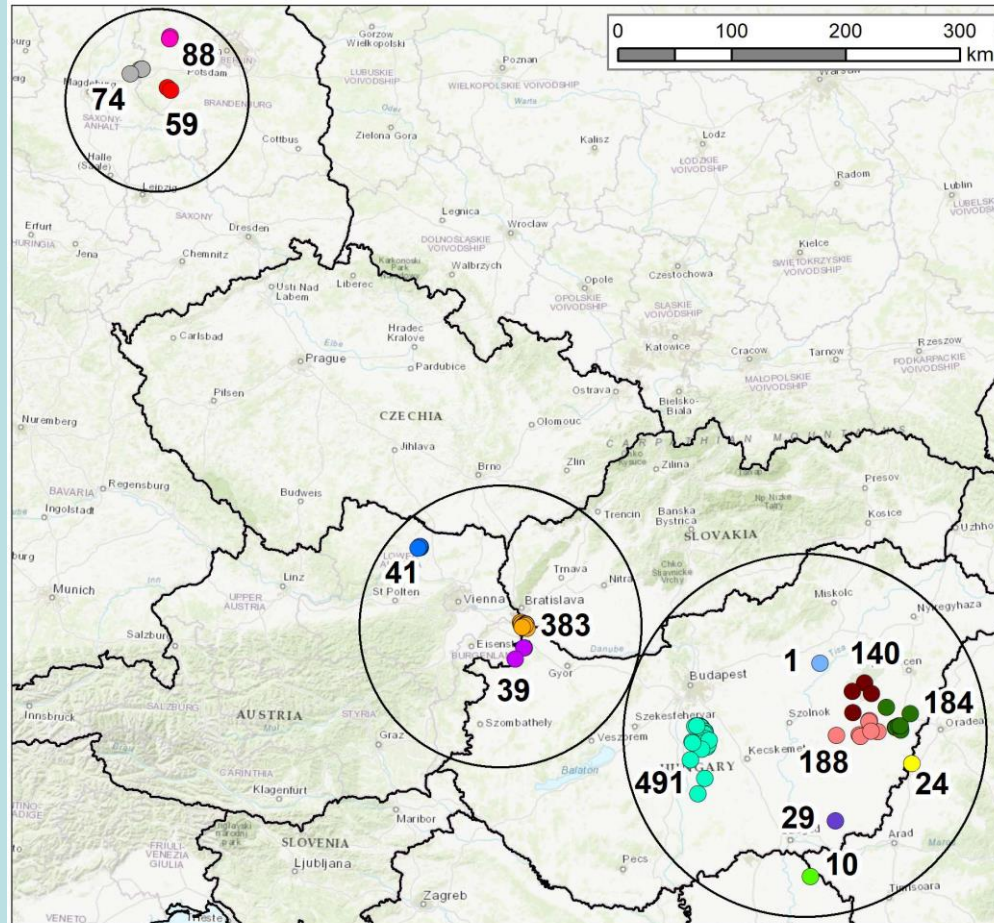


Results of the “3rd Synchronous Winter Count of the Great Bustard in Central Europe on the 14th & 15th of January 2022” within the LIFE project “Great Bustard”

(extended period 14th – 19th of January 2022)

Efforts to protect the great bustard are showing success throughout Central Europe





Results of synchronous winter count of all 3 Great Bustard populations (German, West-Pannonian and East-Pannonian population) in Central Europe - 17/02/2017 (1,751 Individuals)

German population (221 Ind.)

- Belziger Landschaftswiesen (59 Ind.)
- Fiener Bruch (74 Ind.)
- Havelländisches Luch (88 Ind.)

West-Pannonian (463 Ind.)

- Parndorfer Platte - Heideboden (383 Ind.)
- Waasen - Hanság, Mosonszolnok (39 Ind.)
- Westliches Weinviertel (41 Ind.)

East-Pannonian population (1,067 Ind.)

- Bihar (184 Ind.)
- Dévaványai-sík (188 Ind.)
- Felső-kiskunsági szikes puszták és turjánvidék (491 Ind.)
- Hevesi-sík (1 Ind.)
- Hortobágy (140 Ind.)
- Vásárhelyi- és Csanádi-puszták (29 Ind.)
- Nagyszalonta (24 Ind.)
- Mokrín (10 Ind.)

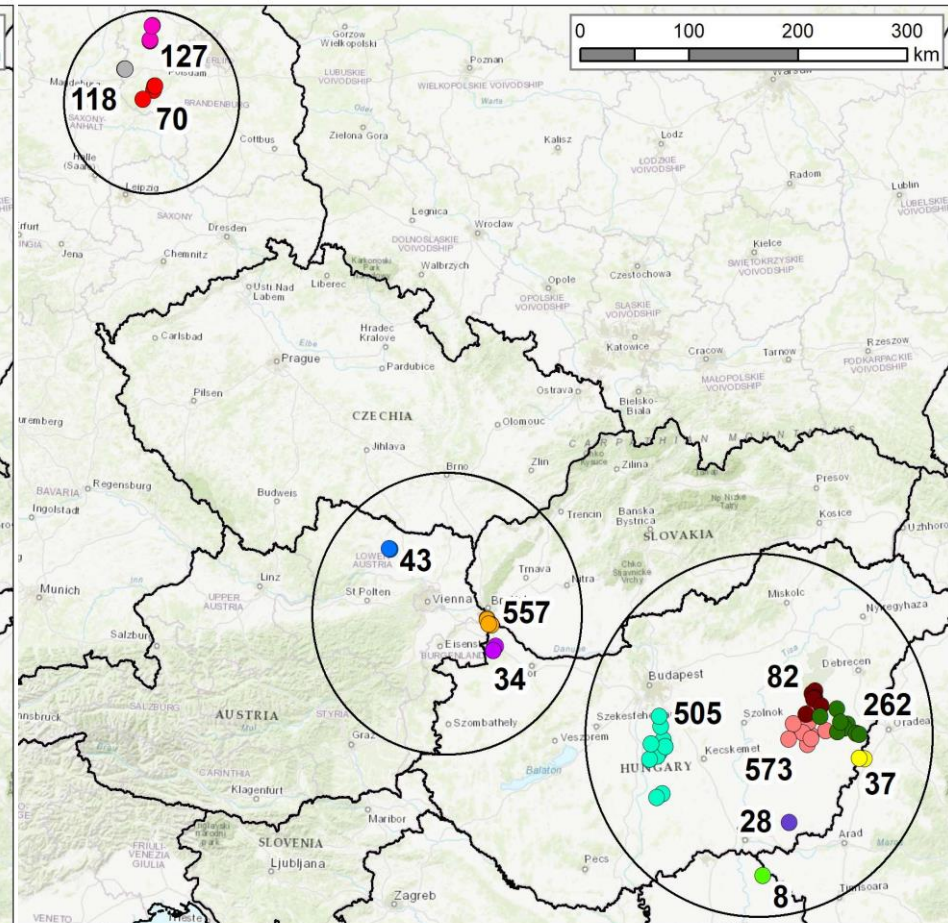
Map preparation: Technisches Büro für Biologie
Mag. Dr. Rainer Raab

Background data: Basemap

LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)

The preparation of this map is co-financed by the LIFE-Nature fund of the European Union.

Data source:
Marcus Borchert et al. (Germany)
Dávid Grabovac et al. (Serbia)
Miklós Lóránt et al. (Hungary)
Attila Nagy et al. (Romania)
Samuel Pacenovsky et al. (Slovakia)
Rainer Raab et al. (Austria, parts of Hungary and Slovakia)
Vlasta Škorpičková et al. (Czech Republic)



Results of synchronous winter count of all 3 Great Bustard populations (German, West-Pannonian and East-Pannonian population) in Central Europe - 14/1/2022 and 15/1/2022 (14/1/2022 - 19/1/2022; 2,444 Individuals)

German population (315 Ind.)

- Belziger Landschaftswiesen (70 Ind.)
- Fiener Bruch (118 Ind.)
- Havelländisches Luch (127 Ind.)

West-Pannonian (634 Ind.)

- Parndorfer Platte - Heideboden (557 Ind.)
- Mosonszolnok (34 Ind.)
- Westliches Weinviertel (43 Ind.)

East-Pannonian population (1,495 Ind.)

- Bihar (262 Ind.)
- Dévaványai-sík (573 Ind.)
- Felső-kiskunsági szikes puszták és turjánvidék (505 Ind.)
- Hortobágy (82 Ind.)
- Vásárhelyi- és Csanádi-puszták (28 Ind.)
- Nagyszalonta (37 Ind.)
- Mokrín (8 Ind.)

Map preparation: Technisches Büro für Biologie
Mag. Dr. Rainer Raab

Background data: Basemap

LIFE Nature Project "Great Bustard" (LIFE15 NAT/AT/000834)

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Attila Nagy (Romania)
Rainer Raab et al. (Austria, parts of Hungary and Slovakia)

The results show, that the individuals of the West-pannonian population of the Great Bustard are linked together, and the population growth in the project sub-areas



are highly dependent on the availability of protection fields and the implementation of measures at power lines.

The LIFE projects for the protection of the Great Bustard ensured an increase in the population and better protection of the habitats of the Great Bustard in Austria and other parts of Central Europe!



LIFE GREAT BUSTARD

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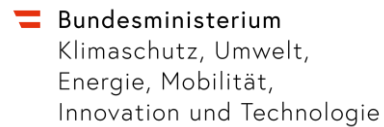
Eike Julius, MSc., MSc.



Thank you for your attention!



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