

# Habitat-use of the Common Buzzard in hamsterconservation-areas

IHWG Hamstercongres  
Brussel 12-oct-2022

Gerard Müskens  
Anke Brouns

Province of Limburg  
Zoogdiervereniging  
Gaiafund Kerkrade  
Kenniscentrum Akkervogels  
Müskens Fauna





backpack transmitter

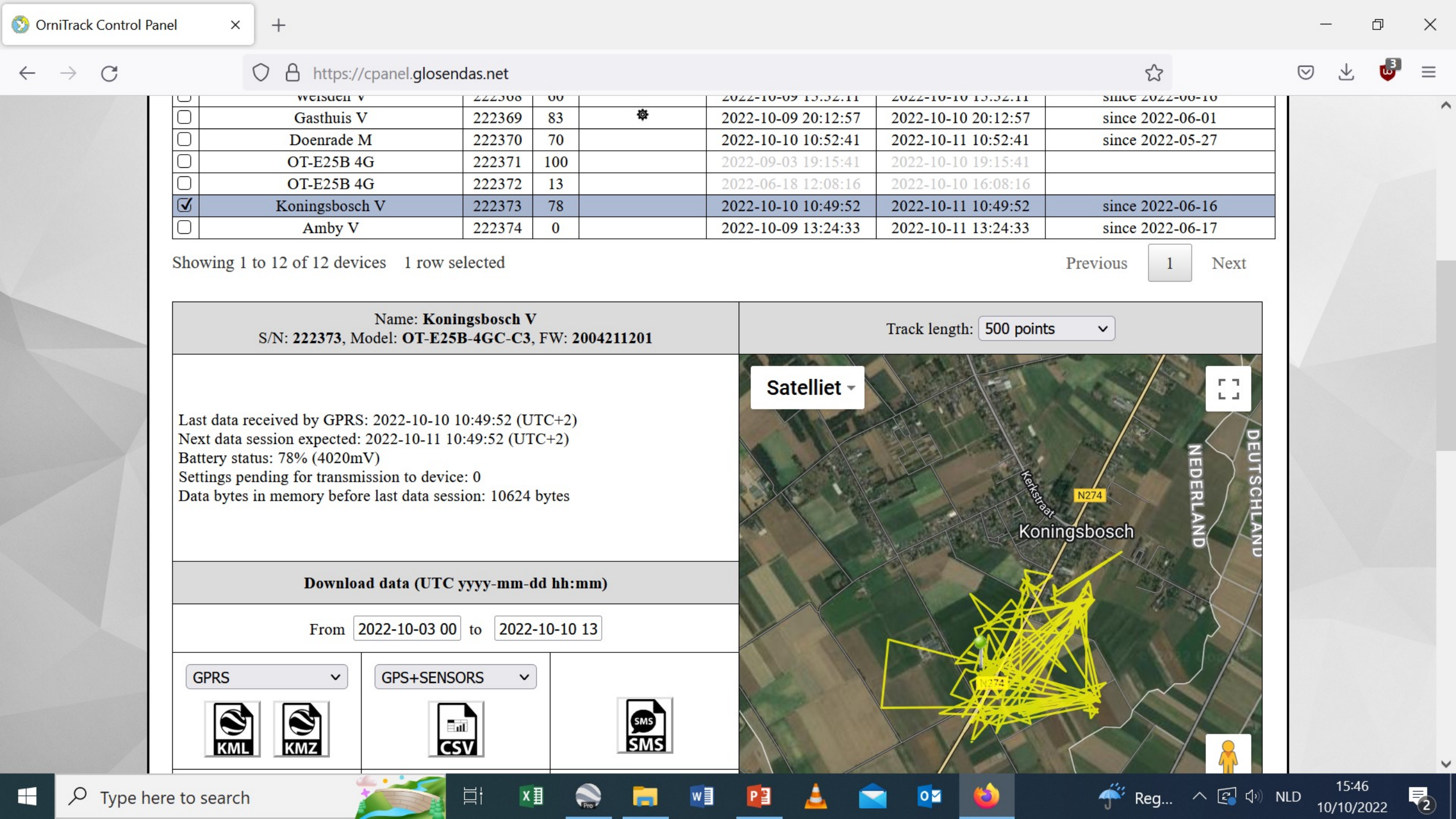
25 grams

Solarpanels

approx. 3 years

programmable





<input type="checkbox"/>	weisdien v	222368	60		2022-10-09 13:52:11	2022-10-10 13:52:11	since 2022-06-10
<input type="checkbox"/>	Gasthuis V	222369	83	⚙️	2022-10-09 20:12:57	2022-10-10 20:12:57	since 2022-06-01
<input type="checkbox"/>	Doenrade M	222370	70		2022-10-10 10:52:41	2022-10-11 10:52:41	since 2022-05-27
<input type="checkbox"/>	OT-E25B 4G	222371	100		2022-09-03 19:15:41	2022-10-10 19:15:41	
<input type="checkbox"/>	OT-E25B 4G	222372	13		2022-06-18 12:08:16	2022-10-10 16:08:16	
<input checked="" type="checkbox"/>	Koningsbosch V	222373	78		2022-10-10 10:49:52	2022-10-11 10:49:52	since 2022-06-16
<input type="checkbox"/>	Amby V	222374	0		2022-10-09 13:24:33	2022-10-11 13:24:33	since 2022-06-17

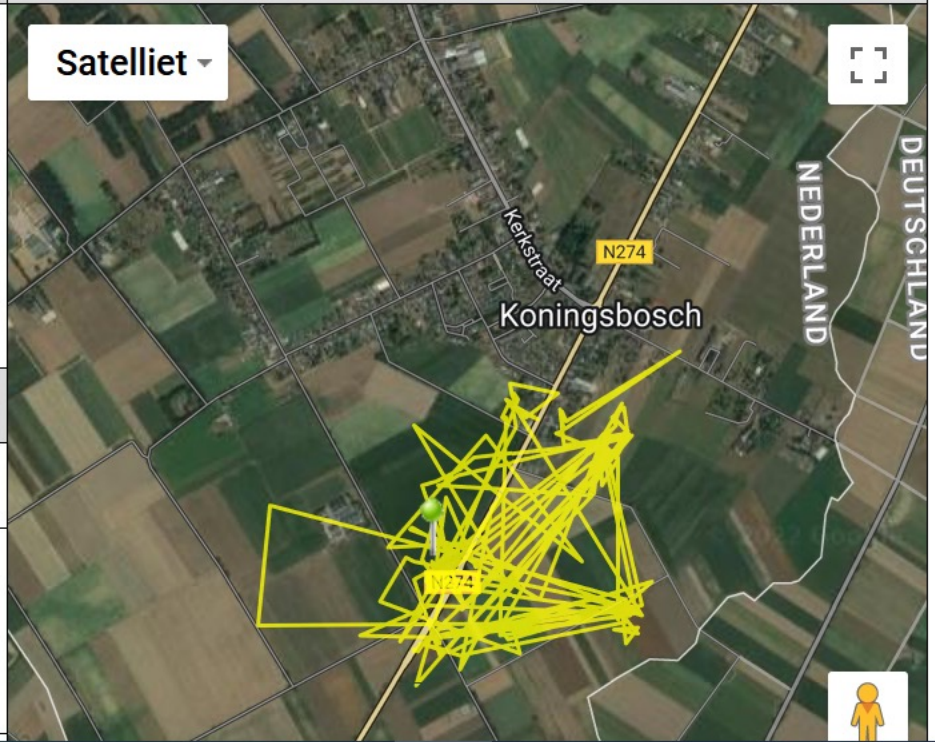
Showing 1 to 12 of 12 devices 1 row selected

Previous 1 Next

Name: **Koningsbosch V**  
 S/N: **222373**, Model: **OT-E25B-4GC-C3**, FW: **2004211201**

Track length: 500 points

Last data received by GPRS: 2022-10-10 10:49:52 (UTC+2)  
 Next data session expected: 2022-10-11 10:49:52 (UTC+2)  
 Battery status: 78% (4020mV)  
 Settings pending for transmission to device: 0  
 Data bytes in memory before last data session: 10624 bytes



**Download data (UTC yyyy-mm-dd hh:mm)**

From  to



for animal tracking data

Search documentation

Toepassingsmenu openen

Search Studies

Search for study **Buzzard Limburg**

New Search

Search result

Sort by Animal Identifier

<input checked="" type="checkbox"/>	Buzzard Limburg [n=11]		
<input checked="" type="checkbox"/>	Amby V, [n=504], Buteo buteo		
<input checked="" type="checkbox"/>	Doenrade M, [n=155711], Buteo buteo		
<input checked="" type="checkbox"/>	Gasthuis V, [n=101375], Buteo buteo		
<input checked="" type="checkbox"/>	Heer M, [n=236407], Buteo buteo		
<input checked="" type="checkbox"/>	Heer M, [n=5516], Buteo buteo		
<input checked="" type="checkbox"/>	Heer V, [n=258417], Buteo buteo		
<input checked="" type="checkbox"/>	Koningsbosch V, [n=87436], Buteo buteo		
<input checked="" type="checkbox"/>	Puth M, [n=261979], Buteo buteo		
<input checked="" type="checkbox"/>	Sibbe F, [n=116712], Buteo buteo		
<input checked="" type="checkbox"/>	Sibbe M, [n=261620], Buteo buteo		
<input checked="" type="checkbox"/>	Welsden V, [n=123327], Buteo buteo		

Search

Select Zoom Options Link Google Maps Open Layers



Download tracking data

Available Sensor Types

GPS

Filter by date

From: 2022-10-07 last 3 days

To: yyyy-MM-dd

Csv  ESRI shapefile

Excel 97  GoogleEarth (Tracks)

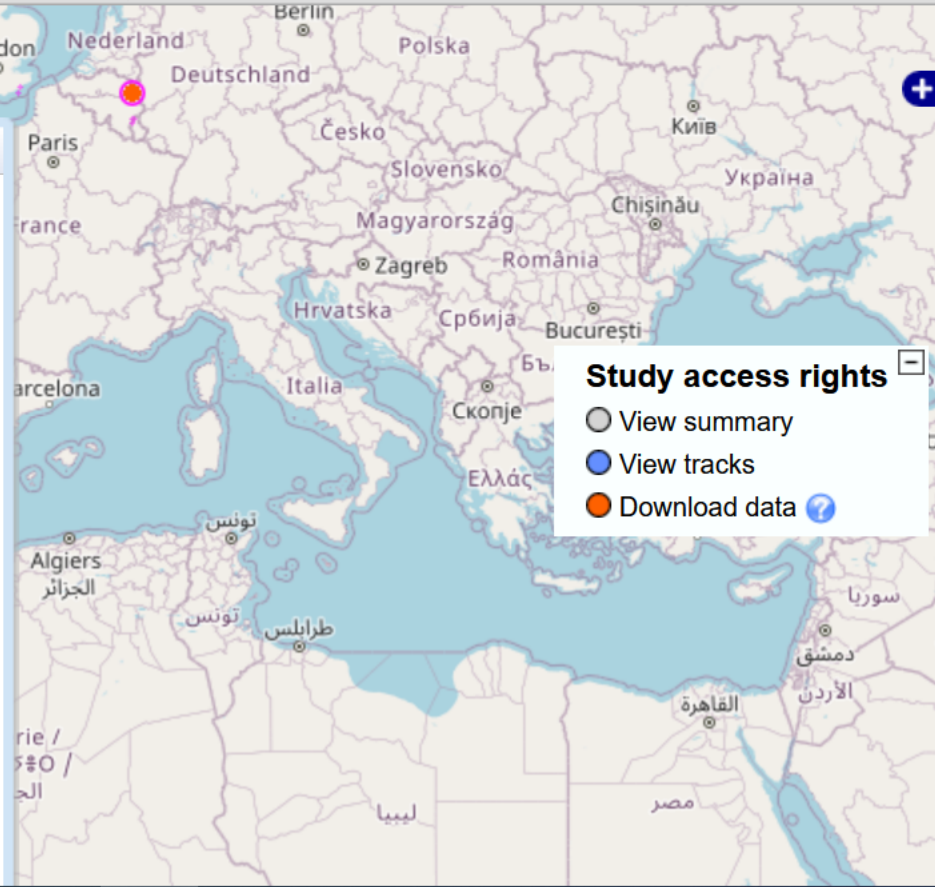
Excel 2007  GoogleEarth (Home Range)

Include undeployed locations

Include points marked as outliers

Add UTM coordinates

Add study local time



**Study access rights**

- View summary
- View tracks
- Download data

timestamp	location-long	location-lat	X-acceler	Y-acceler	Z-acceler	barometric-height	battery-charge-	battery-cha	external-temp
2022-10-05 00:04:00	5.82083225	50.8354607	186	-992	223	108	40	0	29
2022-10-05 02:04:08	5.82064056	50.8353043	-85	-976	260	114	39	0	30
2022-10-05 04:03:58	5.82070732	50.8353958	13	-961	291	122	39	0	28
2022-10-05 04:50:45	5.82044411	50.8350525	-109	-972	251	121	38	0	30
2022-10-05 05:05:32	5.82075071	50.8354416	134	-538	868	123	38	0	30
2022-10-05 05:20:31	5.82662487	50.8377609	204	-609	778	107	38	0	27
2022-10-05 05:35:31	5.82676315	50.8376122	-132	-364	886	108	38	0	27
2022-10-05 05:50:37	5.82605362	50.8373451	63	-534	866	108	38	0	27
2022-10-05 06:05:44	5.8206315	50.8358078	9	-969	299	118	39	0	26
2022-10-05 06:20:33	5.82108688	50.8358727	74	-978	255	117	39	0	27
2022-10-05 06:35:36	5.82072926	50.8356781	36	-989	200	119	38	0	28
2022-10-05 06:50:32	5.8208456	50.8358345	31	-984	222	118	38	0	30
2022-10-05 07:05:32	5.82092333	50.8354492	52	-981	250	119	38	0	30

date-time      coordinates      accelerometer (x-y-z-)      height      battery      temperature

gps:satellite-count	gps-time-to-fix	ground-speed	heading	height-above	import-marker	gls:light-le
7	16.12	0	315	164	ONWAAR	0
6	24.06	0.2777778	313	155	ONWAAR	0
7	13.95	0	314	145	ONWAAR	0
10	22.13	0	126	178	ONWAAR	0
7	9.53	0	297	134	ONWAAR	0
7	8.29	0.2777778	157	177	ONWAAR	0
8	8.6	0.2777778	32	137	ONWAAR	0
5	14.97	0	304	94	ONWAAR	0
6	21.11	0	87	87	ONWAAR	0
10	10.41	0	337	40	ONWAAR	0
10	14.02	0	263	105	ONWAAR	0
8	9.41	0.2777778	306	152	ONWAAR	0

satelites

fix-time

speed

direction

height-sealevel

mag:magneti	mag:magneti	mag:magnet	orn:trans	tag-vol	sens	individual-taxo	tag-local	individual	study-name
-11.819	16.087	-12.958	GPRS	3815	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.812	16.288	-12.961	GPRS	3812	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.814	16.265	-12.979	GPRS	3812	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.805	16.333	-12.917	GPRS	3809	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.457	16.039	-13.176	GPRS	3809	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.716	16.296	-13.018	GPRS	3809	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.331	16.234	-13.162	GPRS	3809	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.596	15.905	-13.057	GPRS	3809	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.826	16.172	-12.998	GPRS	3812	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.86	16.229	-12.967	GPRS	3812	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.841	16.123	-12.954	GPRS	3809	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg
-11.829	16.12	-12.959	GPRS	3809	gps	Buteo buteo	211817	Sibbe F	Buzzard Limburg

species

Tag-Id Individual

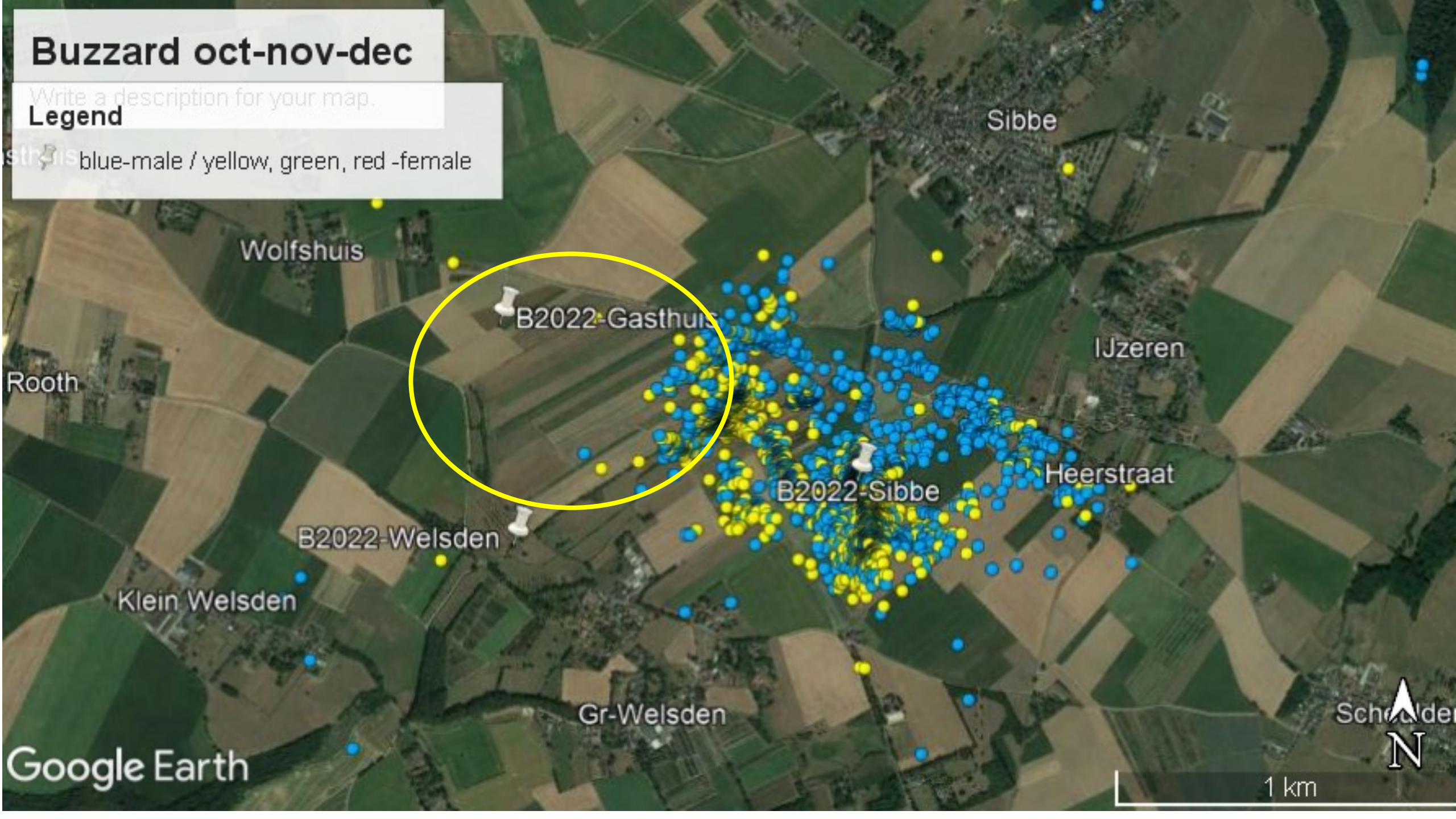


# Buzzard oct-nov-dec

Write a description for your map.

## Legend


blue-male / yellow, green, red -female

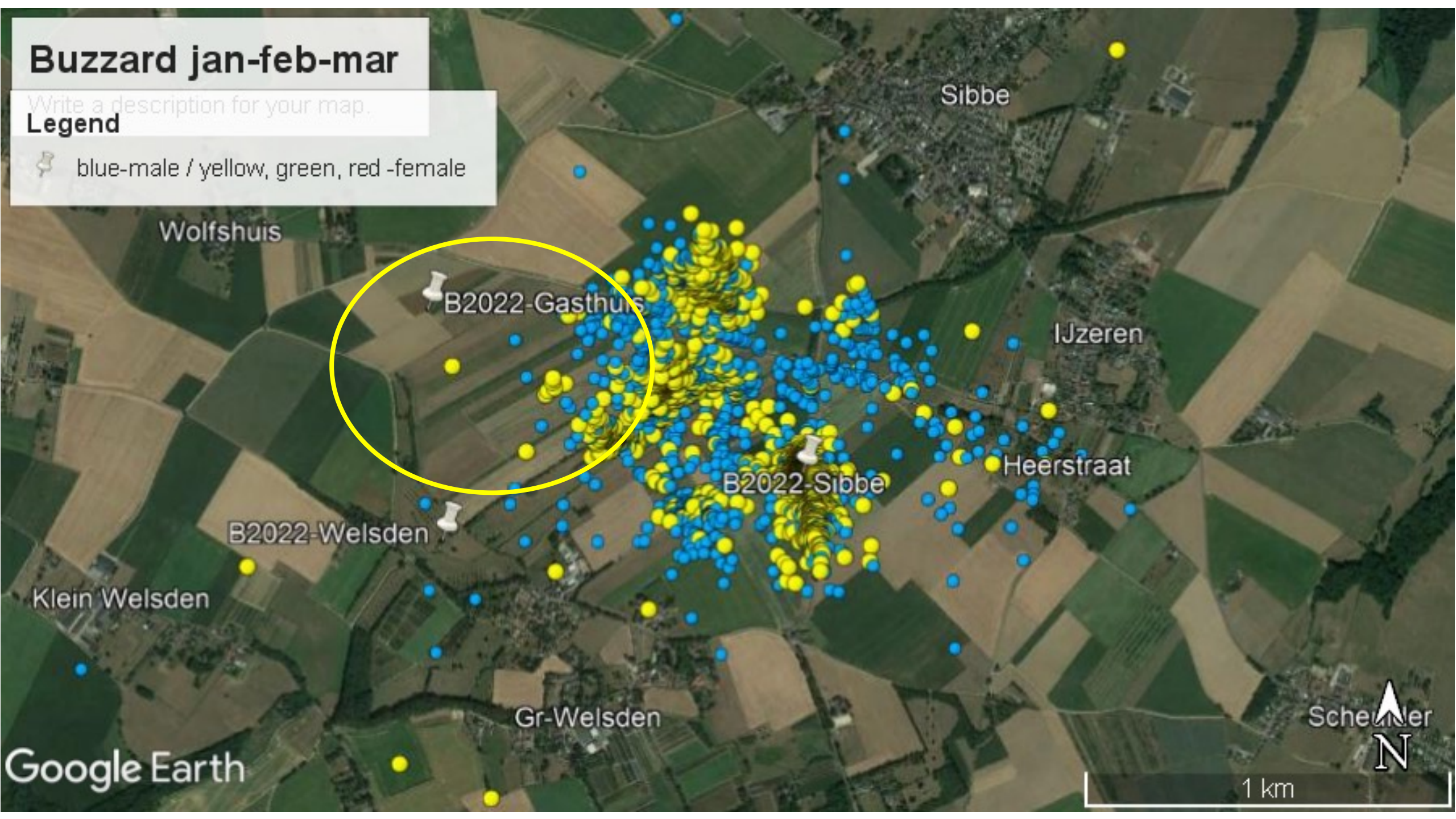


# Buzzard jan-feb-mar

Write a description for your map.


## Legend

 blue-male / yellow, green, red -female



# Buzzard-sitting

## Legend

 jun-jul-aug-sep 2022



Wolfshuis

B2022-Gasthuis

SIBBE-IJZEREN

Sibbe

IJzeren

B2022-Sibbe

Heerstraat

B2022-Welsden

Klein Welsden

Google Earth

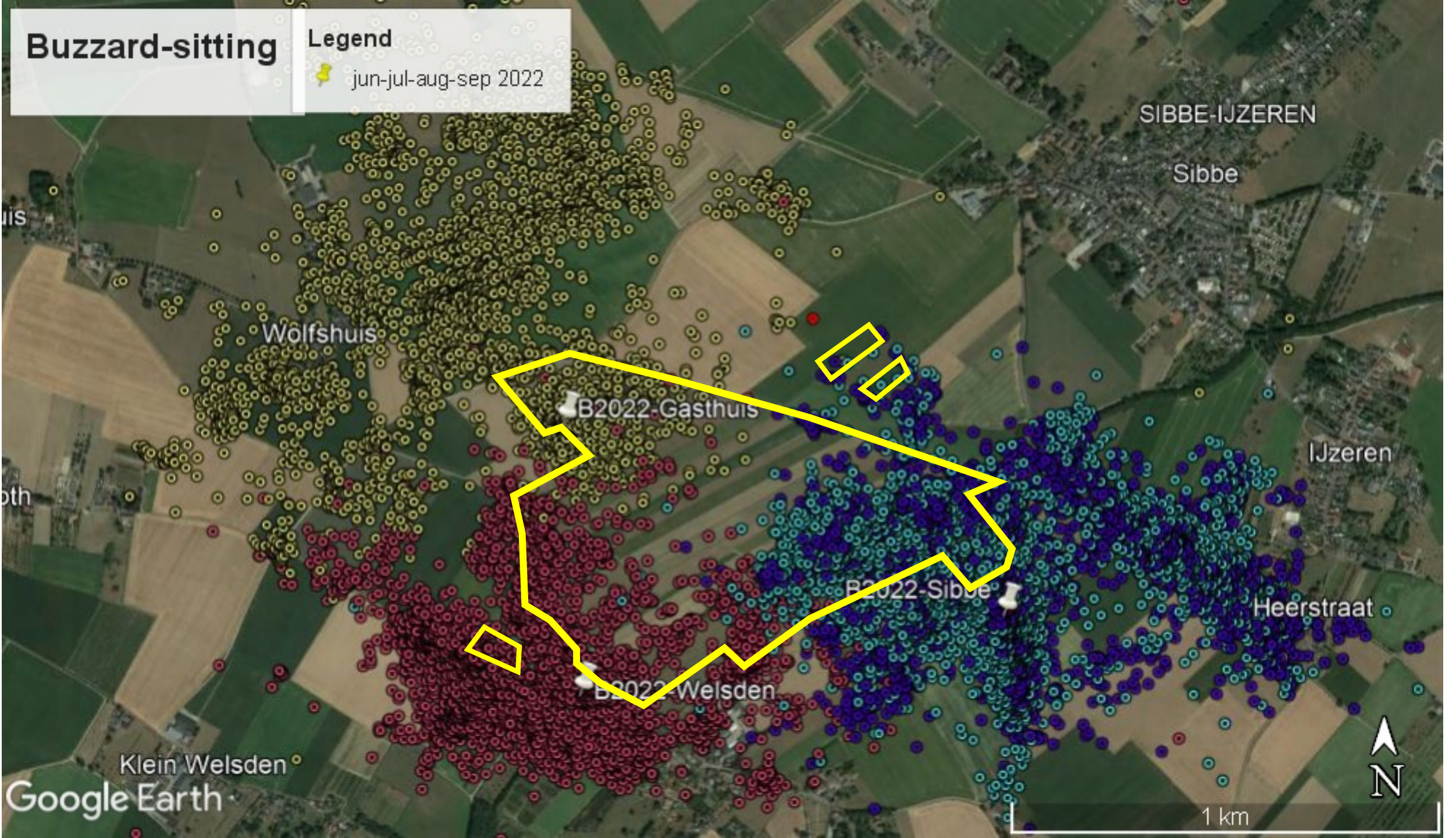


1 km

# Buzzard-sitting


## Legend


📍 jun-jul-aug-sep 2022





# Buzzard-sitting

## Legend

 jun-jul-aug-sep 2022

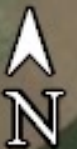
 B2022-Gasthuis

B2022-Sibbe 

 B2022-Welsden


Google Earth


600 m





# Buzzard-sitting

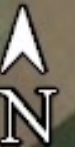
## Legend

 jun-jul-aug-sep 2022

 B2022-Gasthuis

 B2022-Sibbe

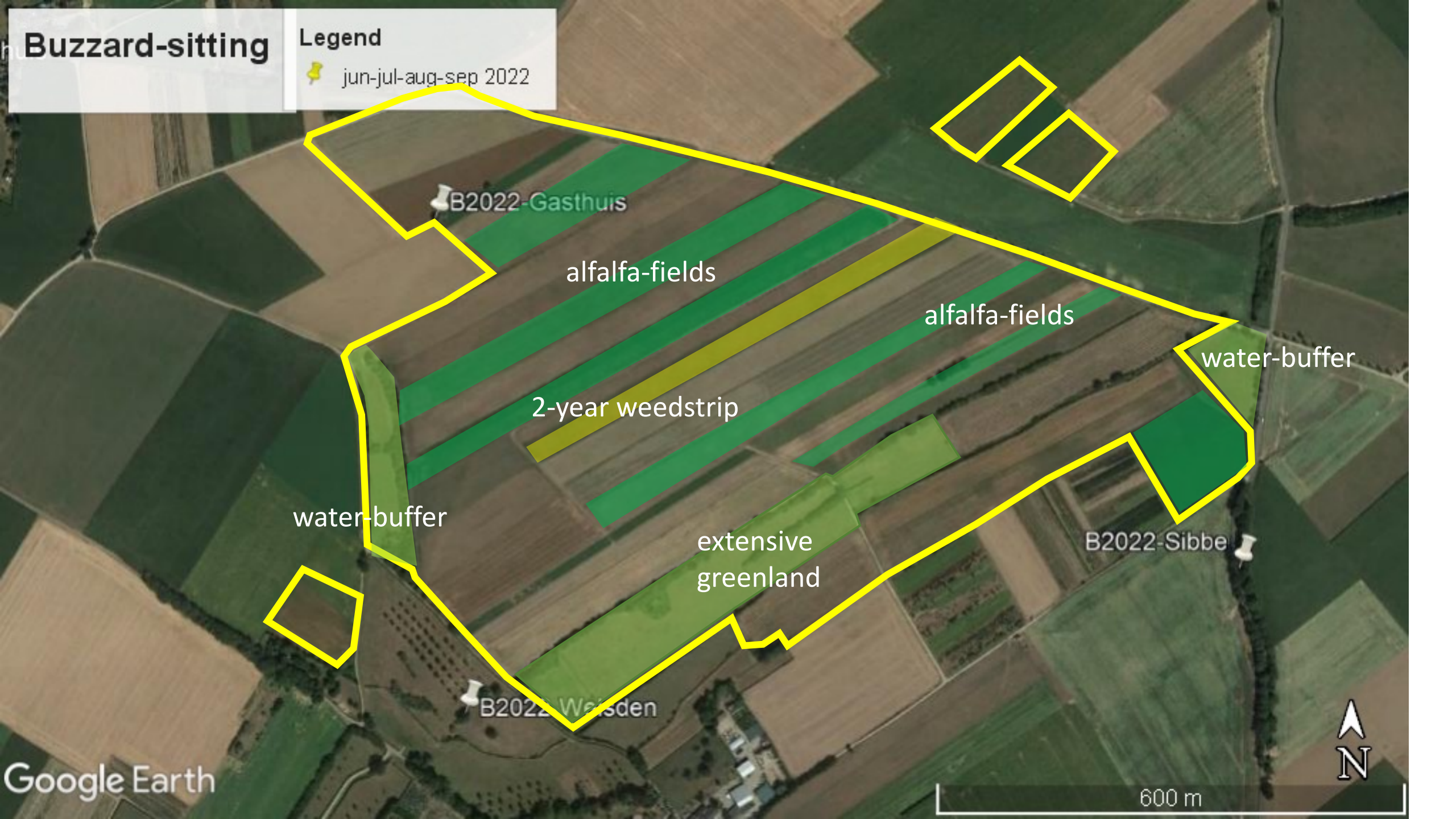
 B2022-Welsden



# Buzzard-sitting

## Legend

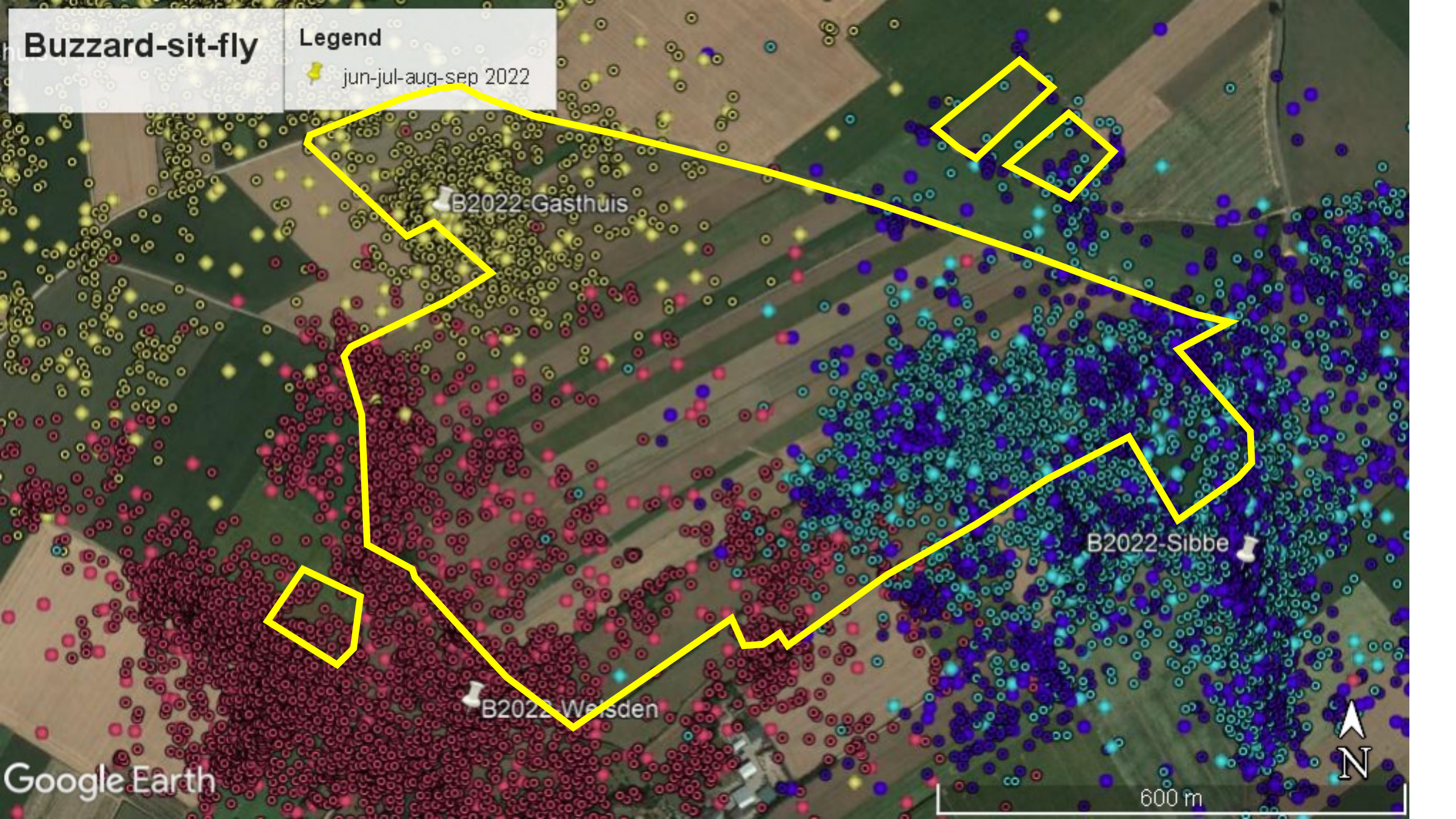
📌 jun-jul-aug-sep 2022



# Buzzard-sit-fly

## Legend

jun-jul-aug-sep 2022

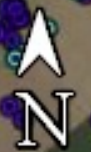
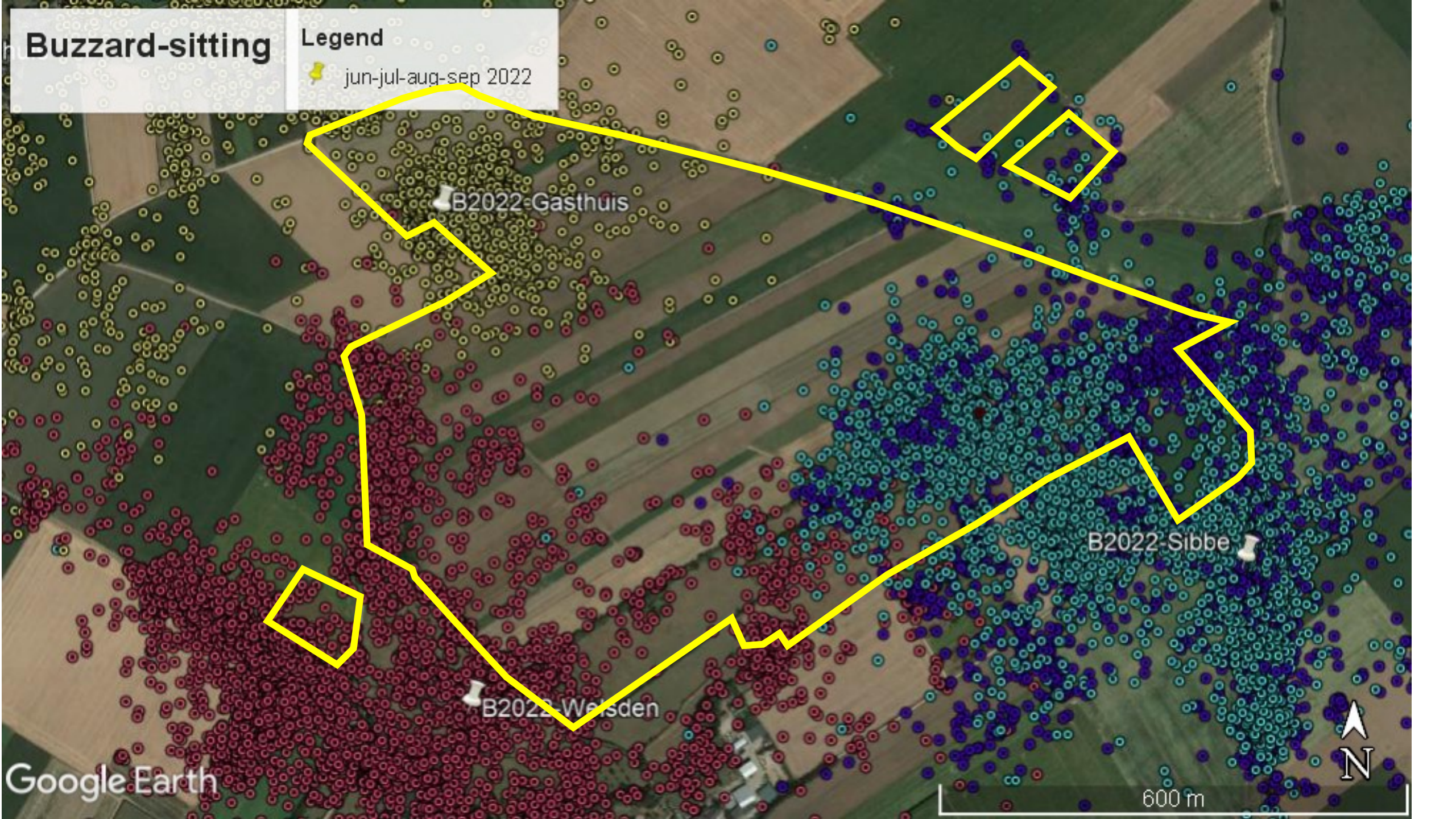




# Buzzard-sitting

## Legend

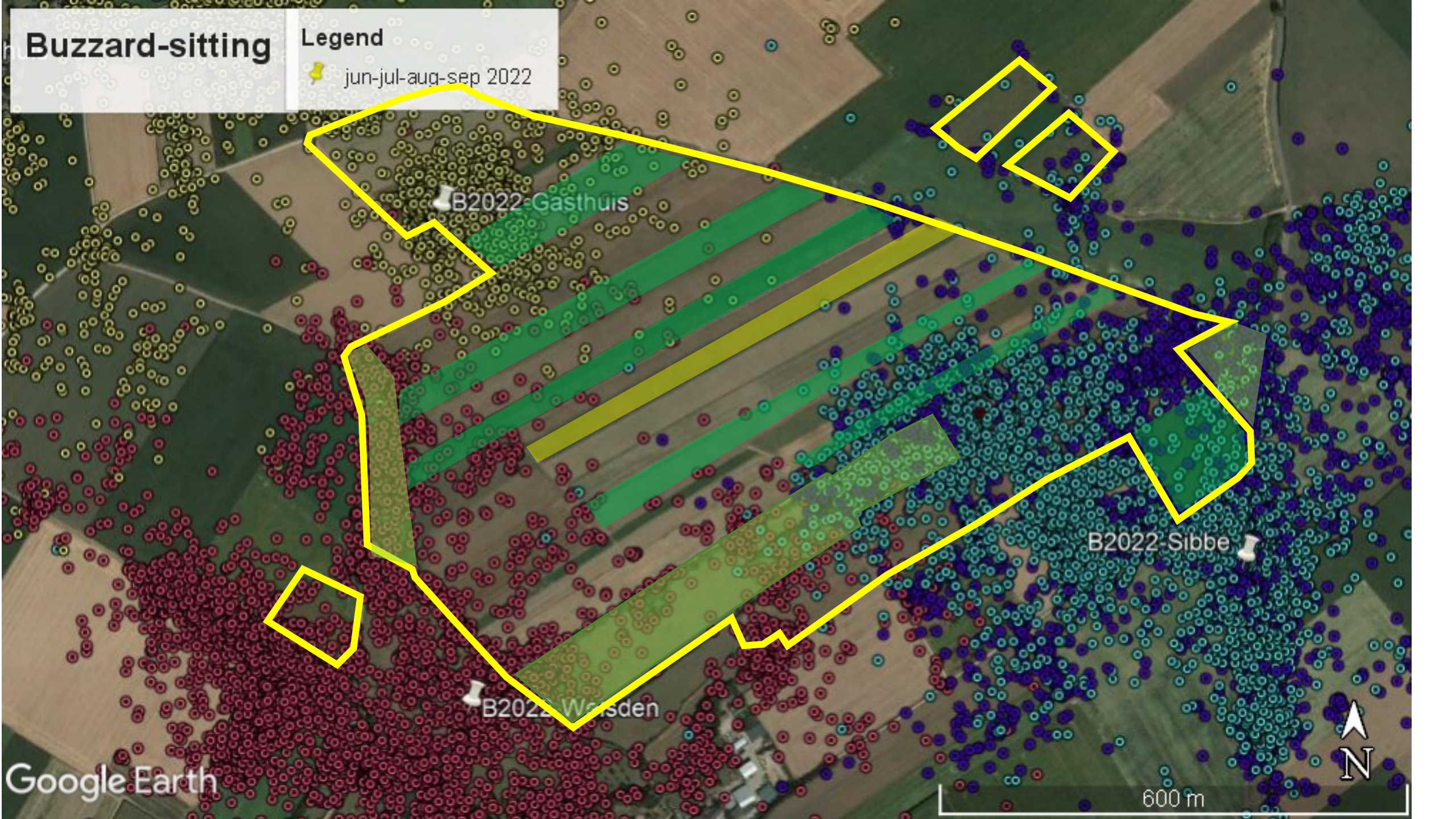
jun-jul-aug-sep 2022



# Buzzard-sitting

## Legend

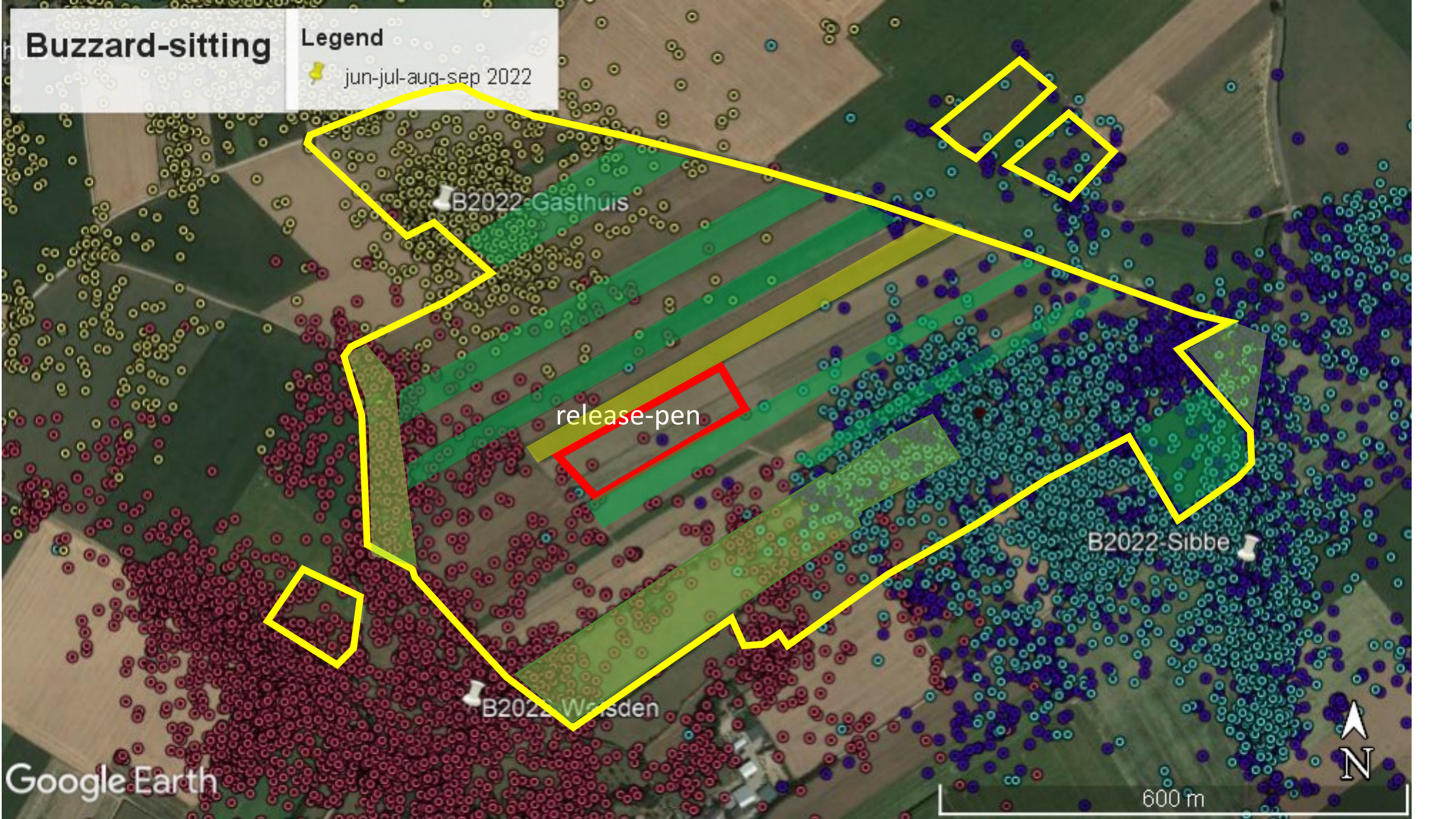
jun-jul-aug-sep 2022



# Buzzard-sitting



## Legend

jun-jul-aug-sep 2022



# Buzzard mar-apr-may

## Legend

 darkblue-male /  lightblue- female

25 april – 3 may

2-year weedstrip  
chopped: around  
24th April


Google Earth

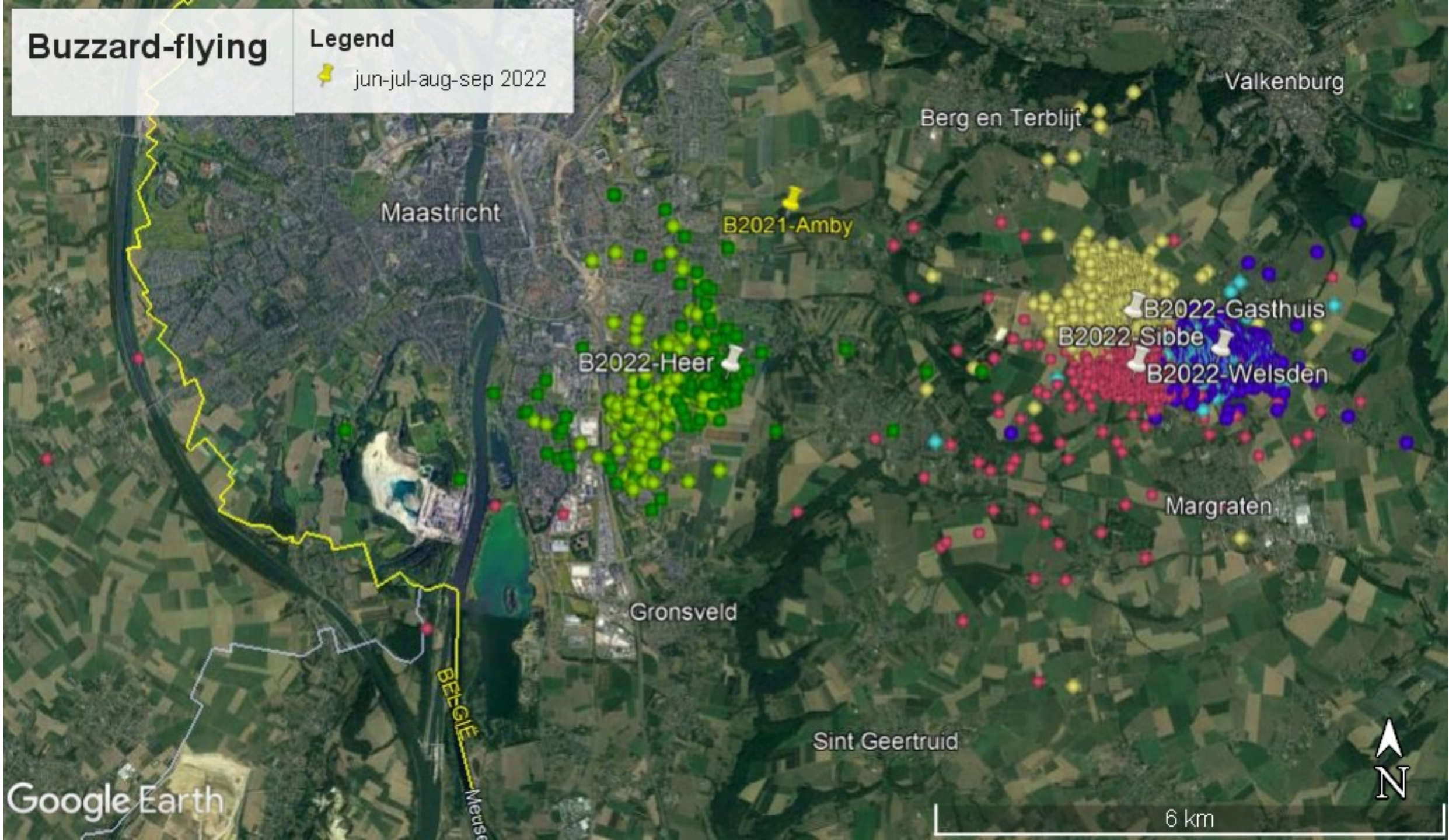
200 m



# Buzzard-flying

## Legend

 jun-jul-aug-sep 2022




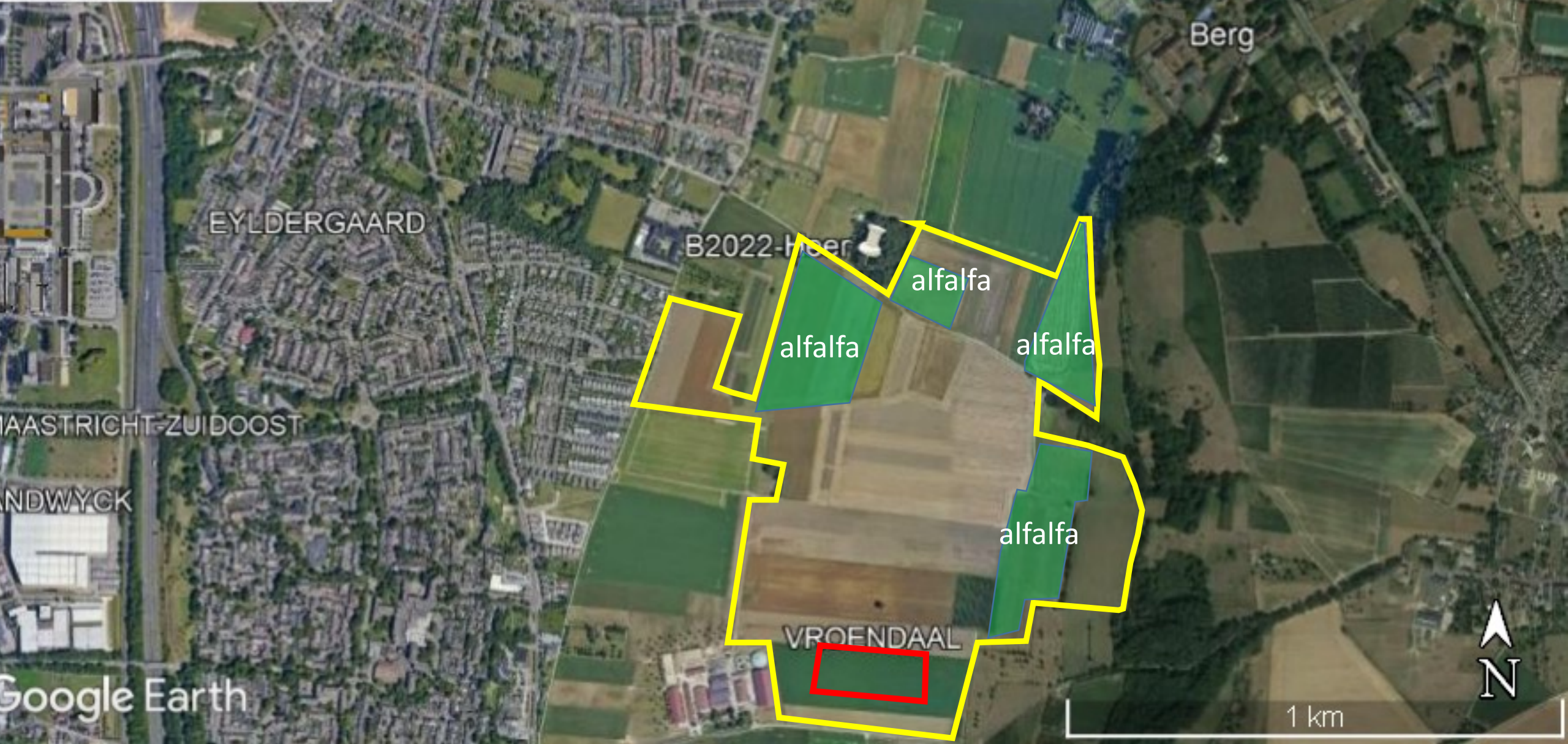
BELGIE

Meuse

# Buzzard-sit-fly


## Legend

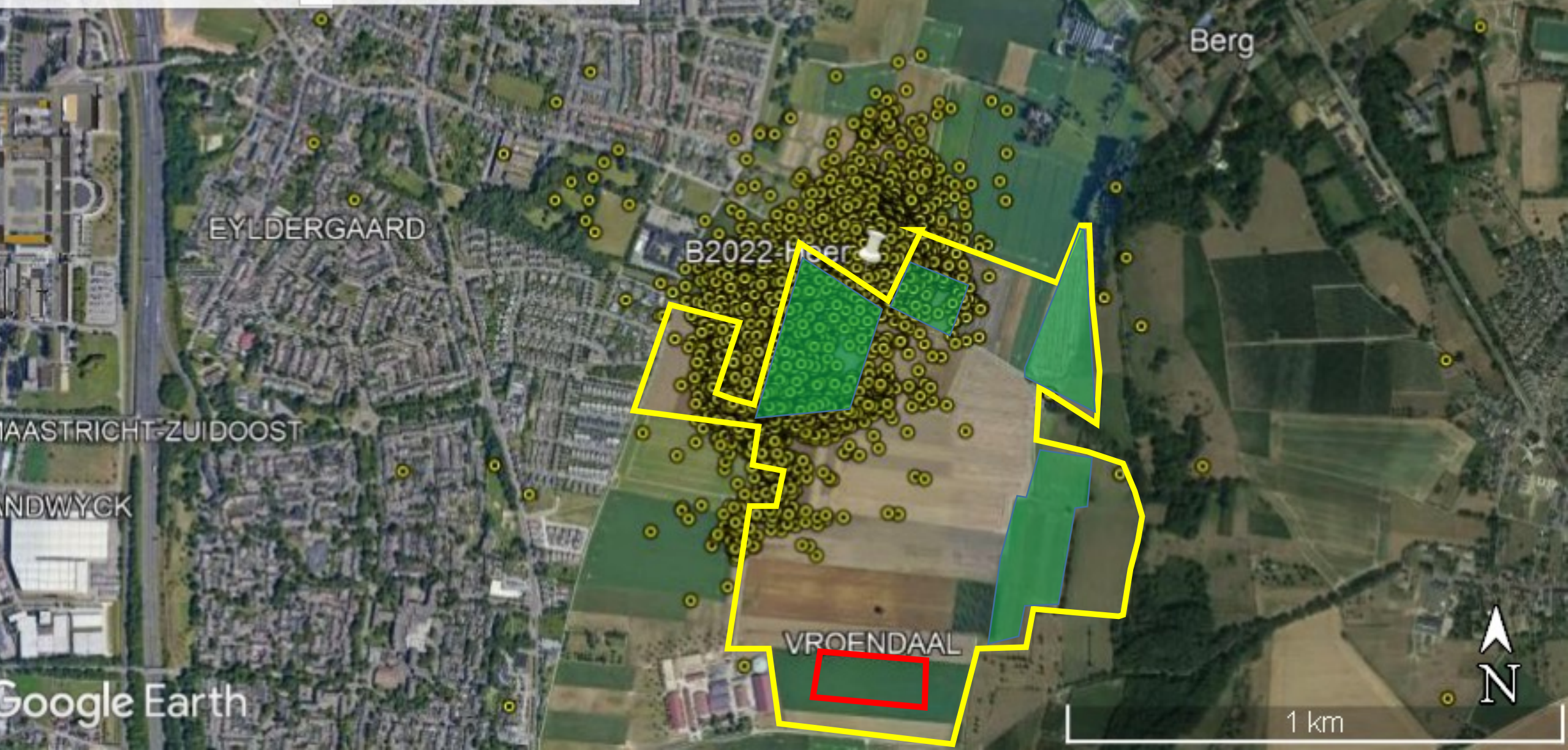
 jun-jul-aug-sep 2022



# Buzzard-sit-fly


## Legend

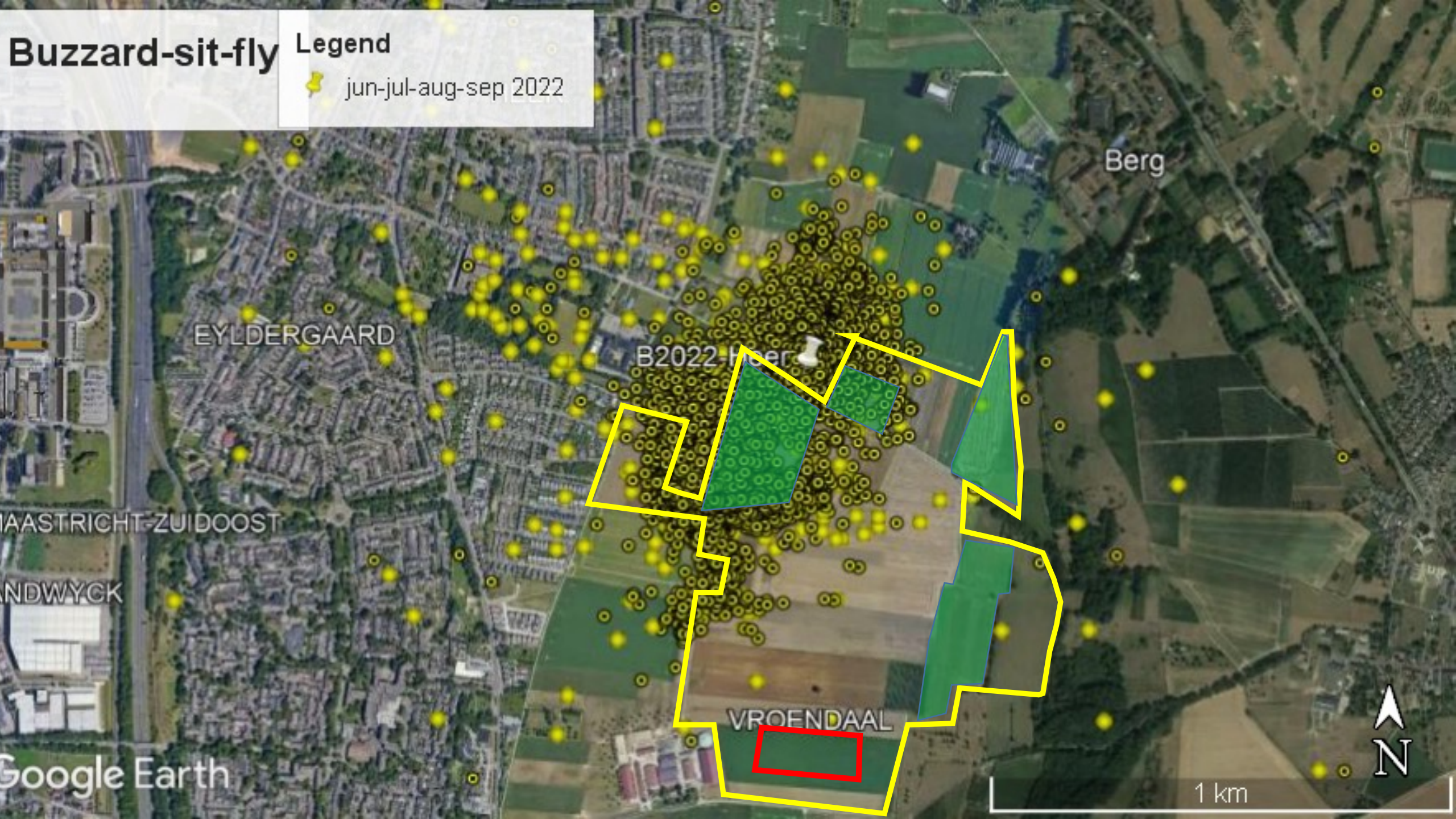
 jun-jul-aug-sep 2022



# Buzzard-sit-fly

## Legend


 jun-jul-aug-sep 2022

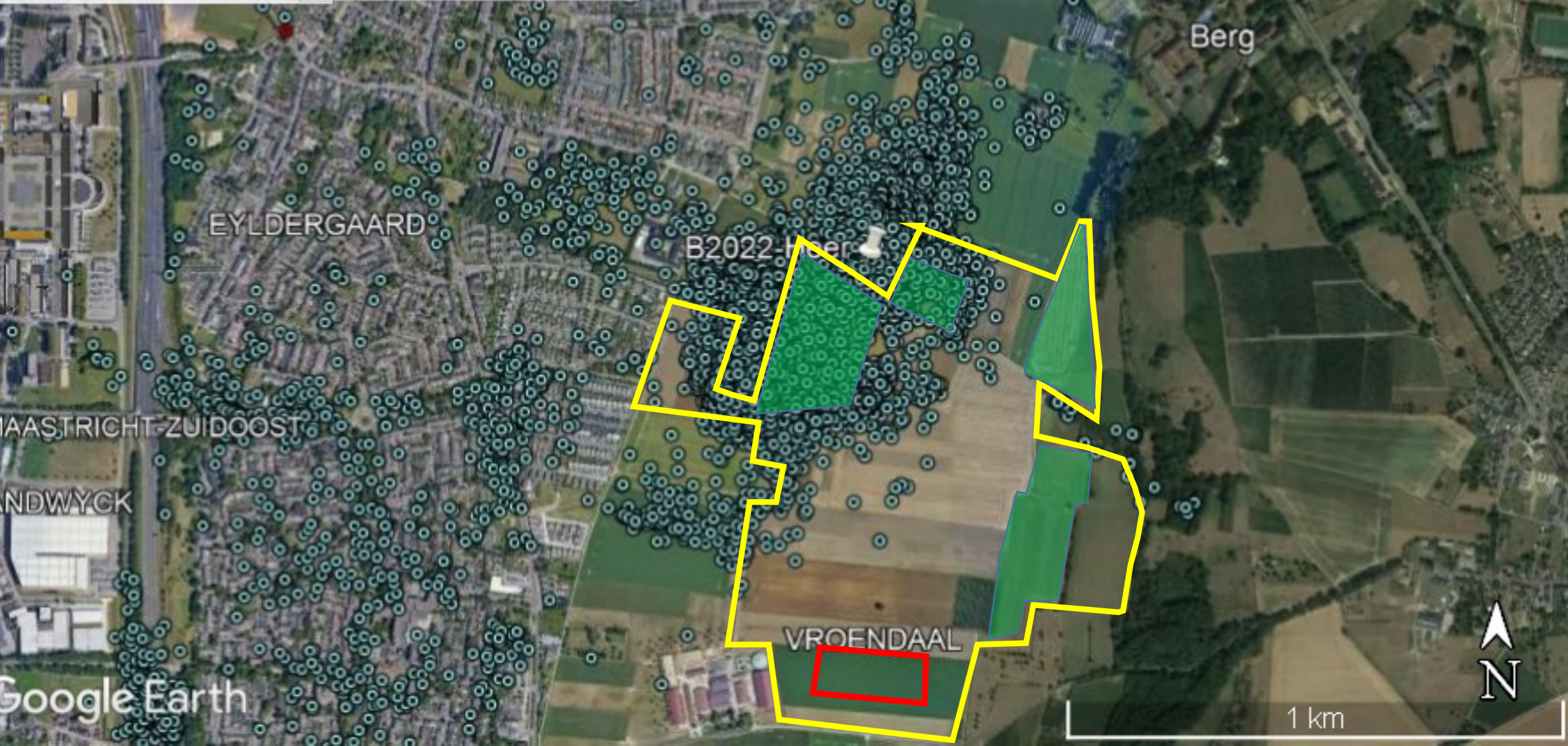




# Buzzard-sit-fly


## Legend

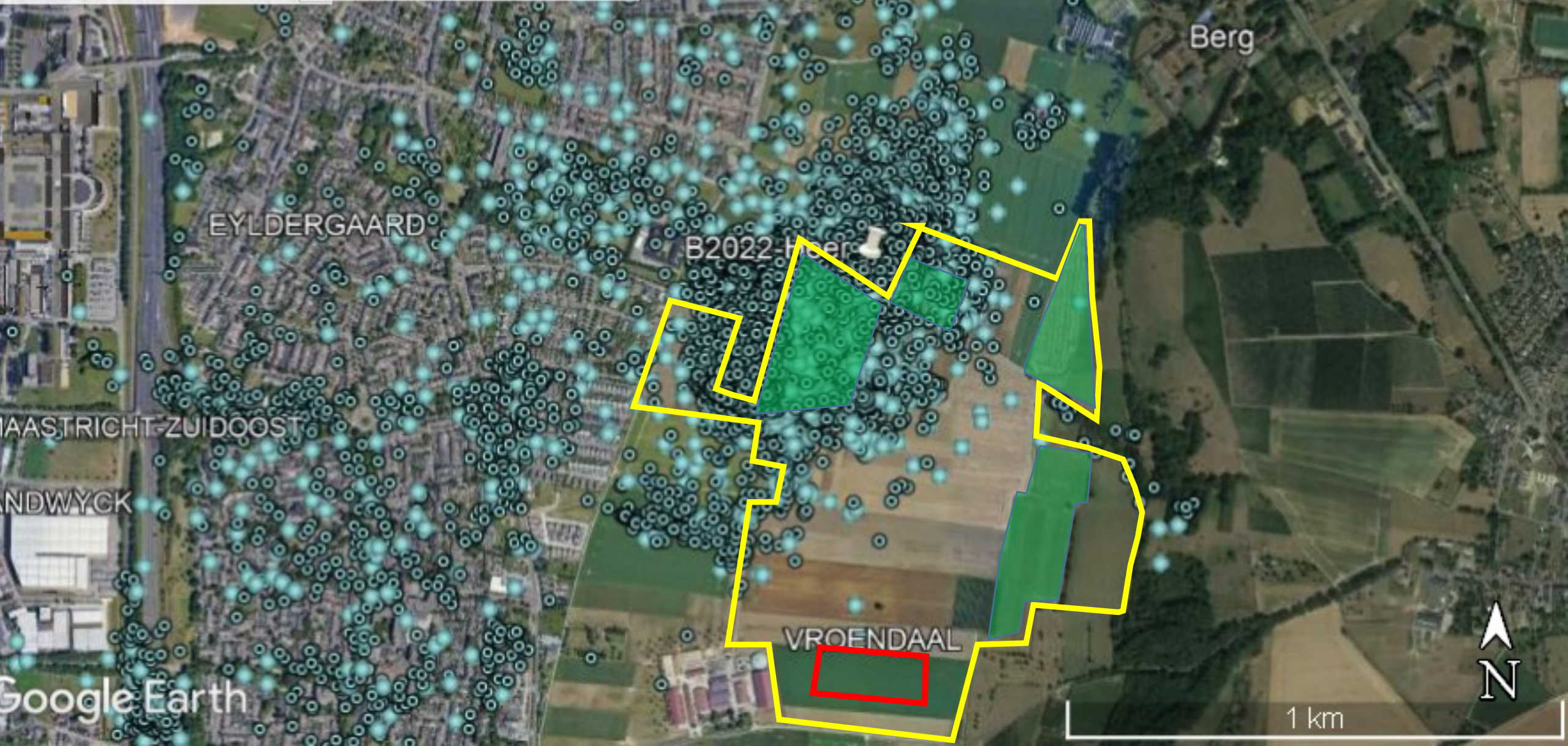
 jun-jul-aug-sep 2022



# Buzzard-sit-fly


## Legend

 jun-jul-aug-sep 2022



# Buzzard jun-okt 2022

## Legend

 female

van Reijans

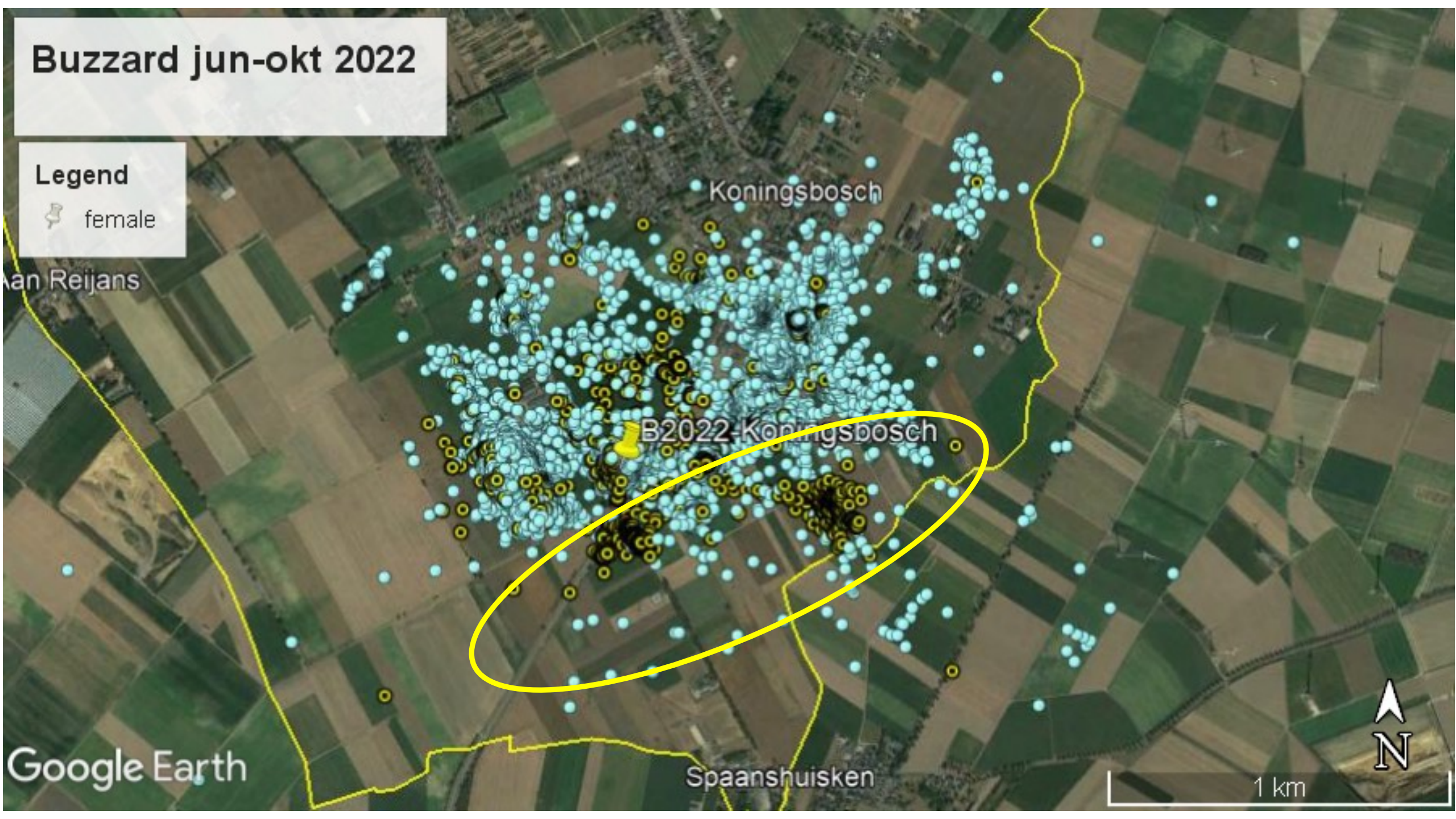
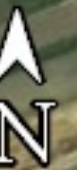
Koningsbosch

B2022-Koningsbosch

Spaanshuisken


Google Earth

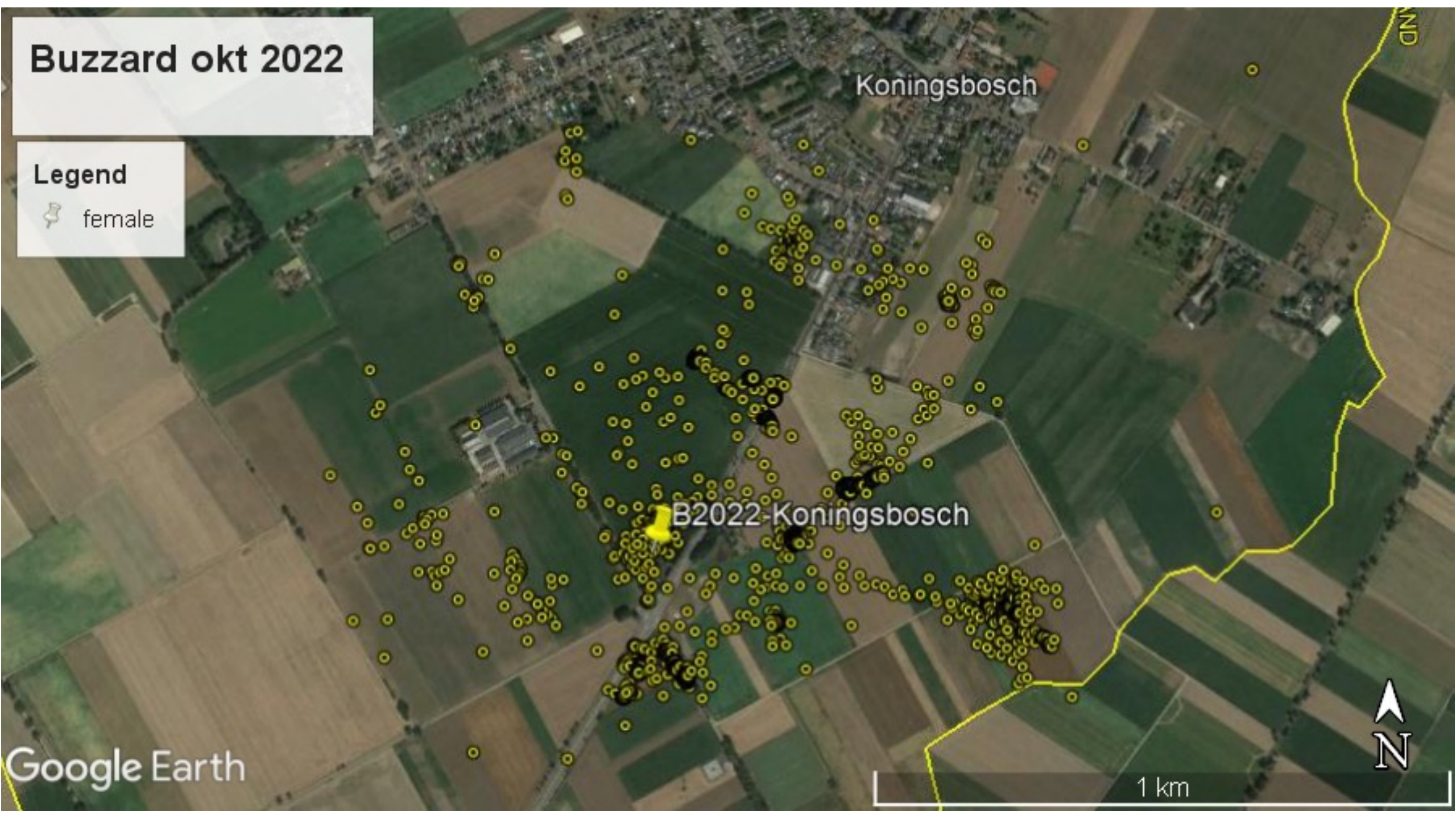
1 km



# Buzzard okt 2022

## Legend

 female



Koningsbosch

B2022-Koningsbosch


Google Earth

1 km

N

# Buzzard okt 2022

## Legend

 female

B2022-Koningsbosch

4-10 October /  
chopped: 4th Oct

Google Earth

500 m



# Summary

- 10 buzzards with transmitter (2021: 5, 2022: 10)
- buzzards have small steady territories
- territory male larger than female with almost total overlap
- too small hamster population for visible predation relation
- chopped, mowed and harvested fields seem very attractive



**Thanks for your attention**