



Monitoring & Data Collecting System

Ben Rosenberg

Head of Wildlife protection Dept.

Law Enforcement Division

Israel Nature & Parks Authority



Israel Nature & Parks Authority

- Manages Nature Reserves & National Parks
- Manages protected flora & fauna populations
- In charge of Hunting Legislation
- Law Enforcement
- Wild Fire fighting
- Assisting Farmers with Agricultural Damage Inflicted by Wildlife



A photograph of a wooden bookshelf filled with various books and binders. The books are organized by color and size, with some labeled in Arabic. The binders are also labeled in Arabic. The shelves are filled with a variety of materials, including hardcover books, spiral-bound notebooks, and large binders. Some of the labels are handwritten in Arabic, while others are printed. The overall appearance is that of a well-organized library or study area.

The image shows three Israeli tax receipts (Kvuchim) for electricity, water, and gas, each featuring the Israel Tax Authority logo and handwritten details.

- Receipt 1 (Left):**
 - Logo: Israel Tax Authority
 - Header: חשבונית מדע (Electricity Receipt)
 - Amount: 133 ₪
 - Category: תשלום (Payment)
 - Period: 1/1/2009 - 31/12/2009
 - Address: תל אביב
- Receipt 2 (Middle):**
 - Logo: Israel Tax Authority
 - Header: חשבונית מדע (Water Receipt)
 - Amount: 14 ₪
 - Category: תשלום (Payment)
 - Period: 1/1/2009 - 31/12/2009
 - Address: תל אביב
- Receipt 3 (Right):**
 - Logo: Israel Tax Authority
 - Header: חשבונית מדע (Gas Receipt)
 - Amount: 135 ₪
 - Category: תשלום (Payment)
 - Period: 1/1/2009 - 31/12/2009
 - Address: תל אביב

2009 - Cyber Tracker

CyberTracker is software from a [South African](#) non-profit company, CyberTracker Conservation, that develops handheld [data capture](#) solutions.^[1] The [software](#) was first developed as a way to allow illiterate [animal trackers](#) to communicate their environmental observations. A prototype was used in 2002 to record details of animals killed in an outbreak of [ebola](#).^[2] It has since evolved to become a general purpose data capture and visualization system.^[3] However, it retains the ability to be used by [illiterate](#) and low-literate users.



CyberTracker

USES SOFTWARE PARTNERS

Discover, explore & protect our planet

Conservation software for mobile data capture and visualization, helping to develop a
Worldwide Environmental Monitoring Network.

Collecting Data

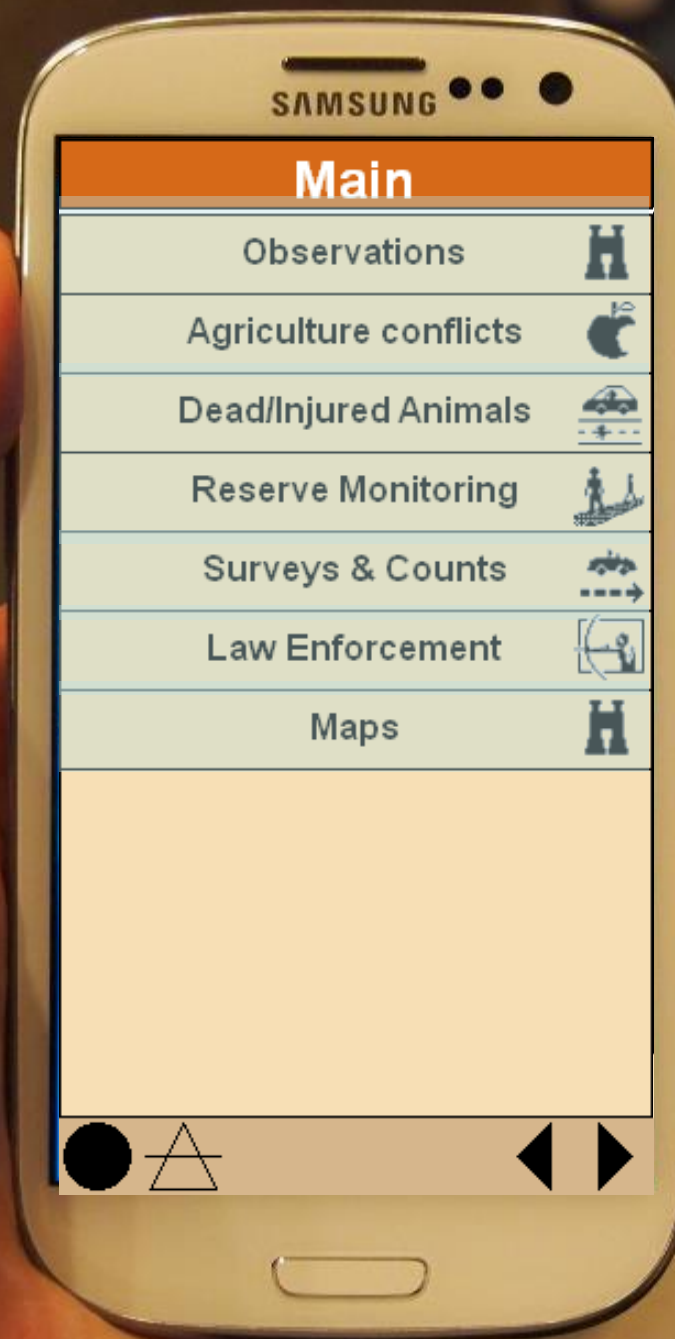


Reserve name
Animal surveys
Plant surveys

Sea turtle nests
Gazelle counts
Vulture feeding station
monitoring

Poaching events
Illegal plant harvesting
fires

Aerial photos &
maps for field
navigation



Animals
Plants
observations

Location
Crop types
Damage type
Species involved

Road carcass
surveys
Poisoning events
Electrocution
Invasive species
management

Our own INPA Apps.

Almost 3 million
reports in 10
years !!



Chukar Partridge – *Alectoris c.*

Protected but
Desired by hunters



Chukar Partridge – *Alectoris c.*



PARKS

ENCYCLOPEDIA

DATA

RESEARCH MAP

TOOLS

Search

Observations

Observers

Documents

Reports From Public

Map Items

Management Plans

Observations Charts

Knowledge Items

Filter Observations

Update Results

☐ My Observations ☐ Observations To Handle

General Filters

Category

Date

Last 7 Days

Last 30 Days

Current Year

From:

2010-01-01

To:

2022-05-30

Date Window

End Date Window

Months

Observer

External Contact

External Person

Observations

Observations - Filter Results (65,008)

[Display On Research Map](#) • [Display On Heat Map](#) • [Display On Axis Table](#) • [Display On Domain Reporting](#)

Date: 2010-01-01 - 2022-05-30


Taxon (Animals And Plants): Alectoris Chukar

Sort By: Reporting Date

Today
8:37 A.M. 0 0 0 1

Alectoris Chukar
Ranger Area Sharon Dromi


Biodiversity

 **Yair Friedberg**
Green Patrol Inspector

Today
8:26 A.M. 0 0 0 0

Alectoris Chukar
Ranger Area The Judean Moun...


Biodiversity

 **Ariel Kedem**
Regional Ranger

Today
7:38 A.M. 0 0 0 0

Alectoris Chukar
Ranger Area The Judean Moun...


Animals Random Observation

 **Uri Orbach**
Infrastructure Ranger

Today
7:22 A.M. 0 0 0 0

Alectoris Chukar
Ranger Area Eastern Lower Gal...

Biodiversity

 **Omri Guelman**
Regional Ranger

Today
7:21 A.M. 0 0 0 0

Alectoris Chukar

Today
7:21 A.M. 0 0 0 0

Alectoris Chukar

Today
7:13 A.M. 0 0 0 0

Alectoris Chukar

Yesterday
4:11 P.M. 0 0 0 0

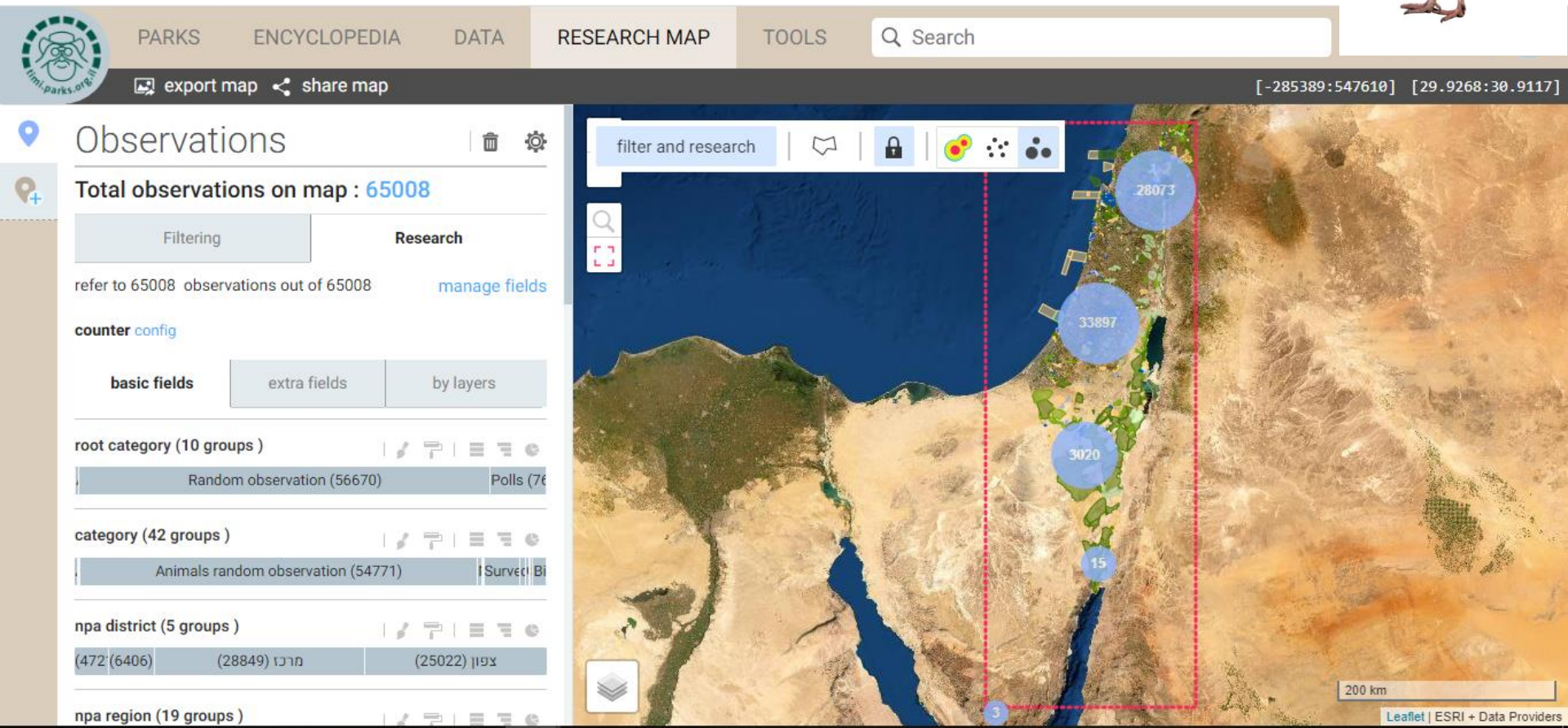
Alectoris Chukar

עזרה?

Chukar Partridge – All sightings



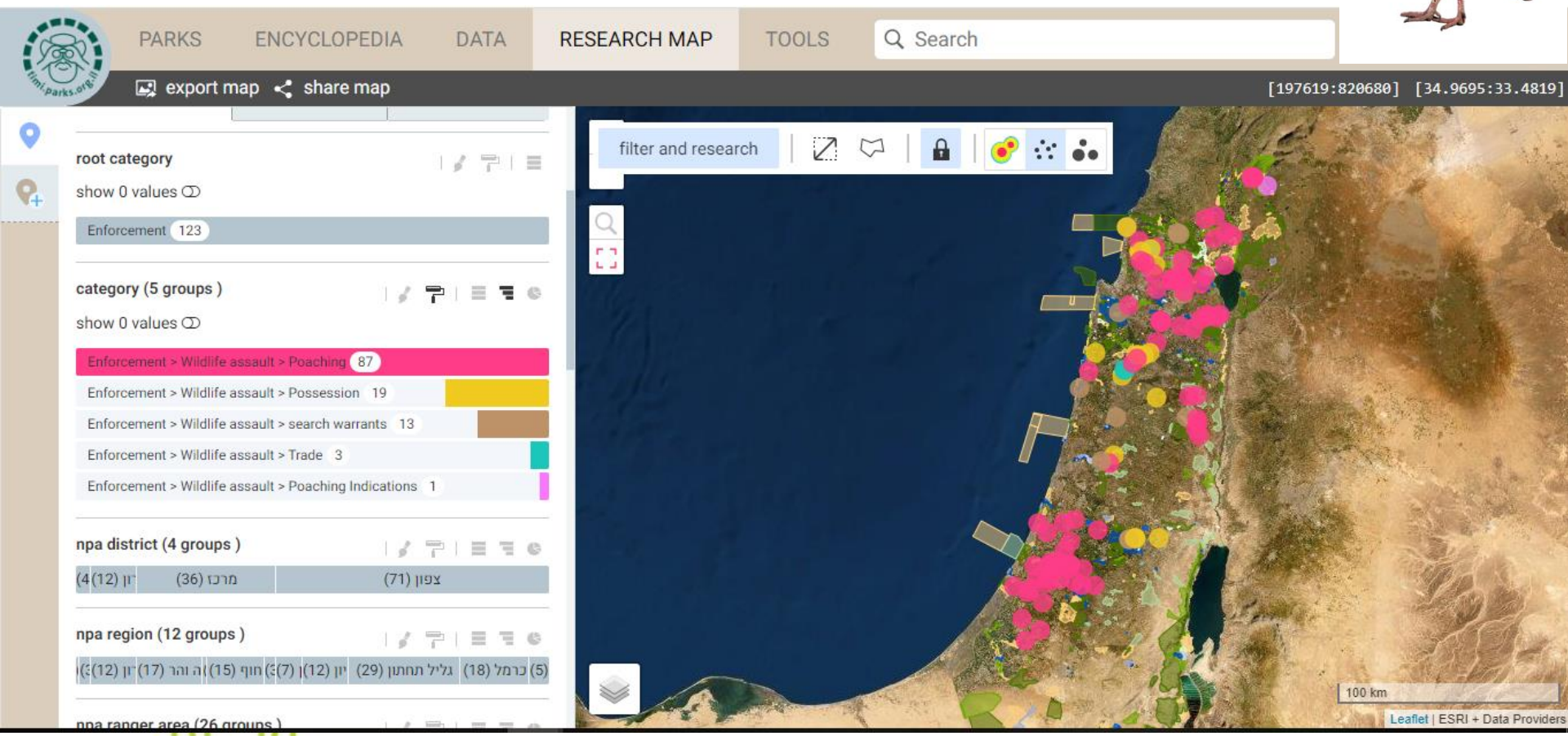
Over 65000 sightings



Chukar Partridge – Law Enforcement



Mostly - poaching

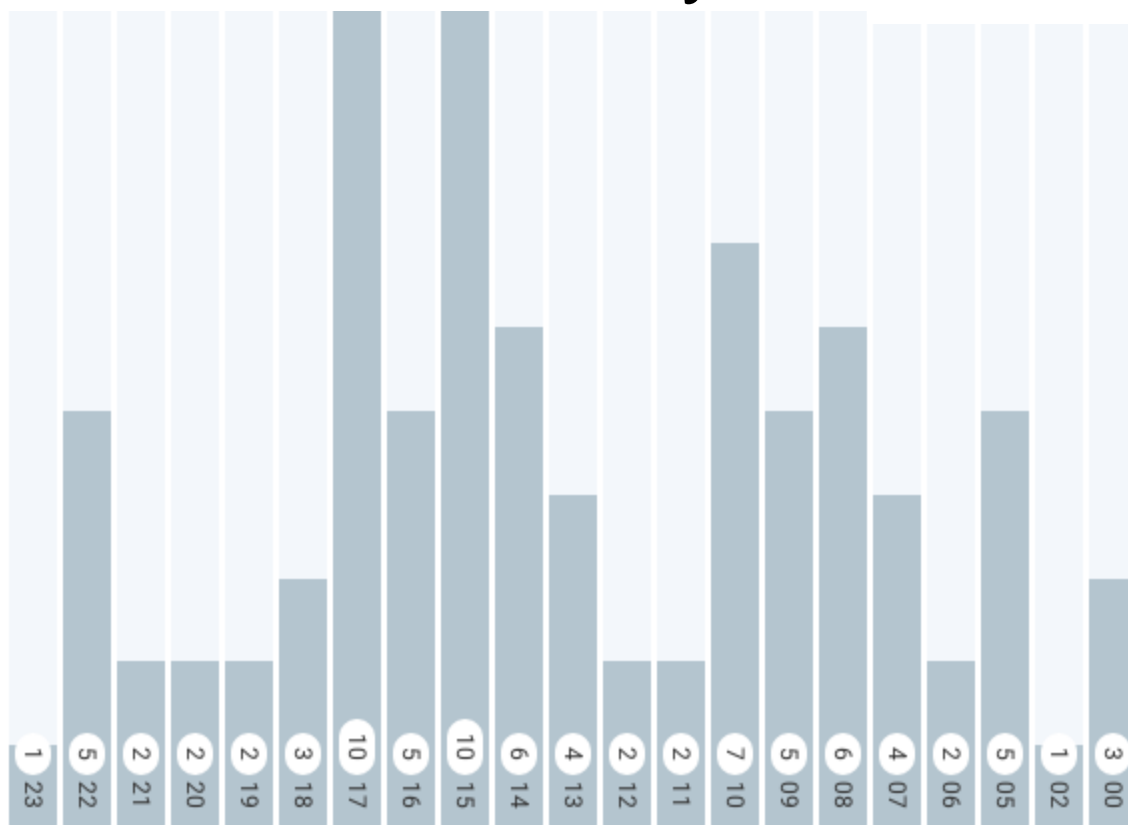
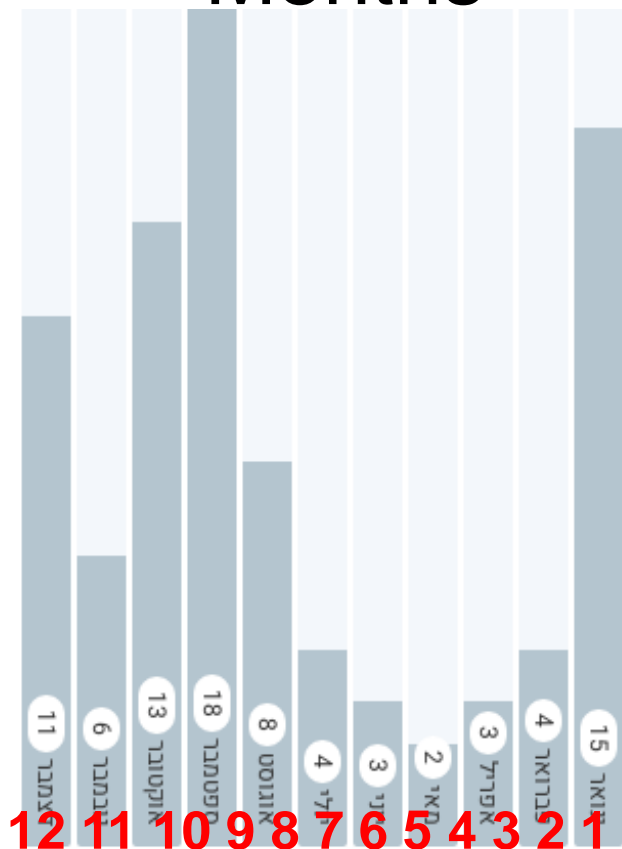


Chukar Partridge – *Poaching*



Months

Time of Day

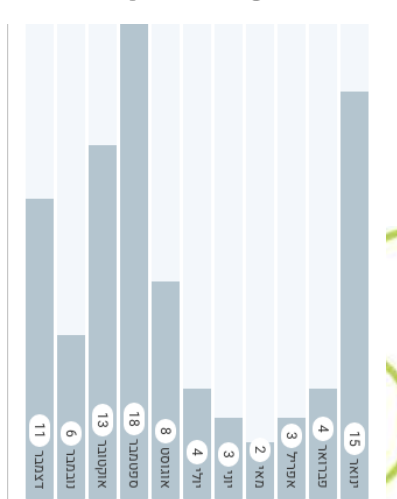


Improving law Enforcement Efforts

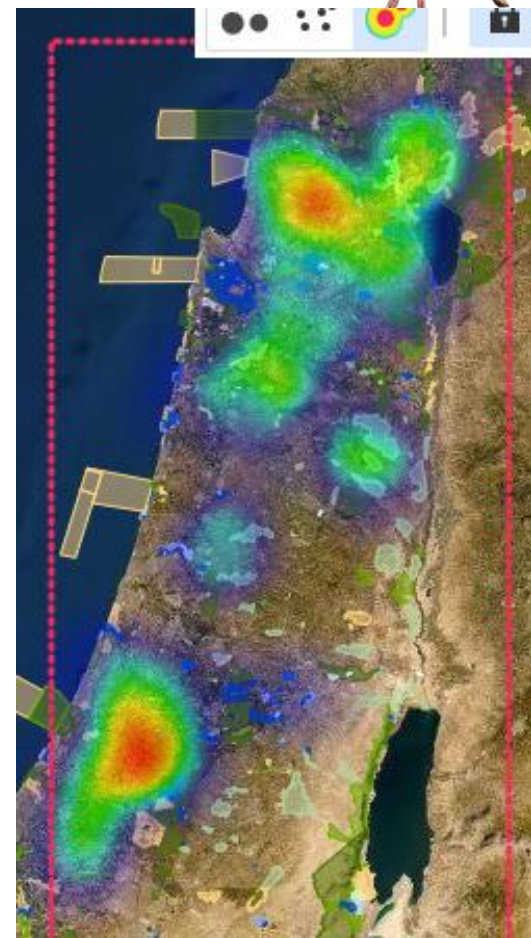
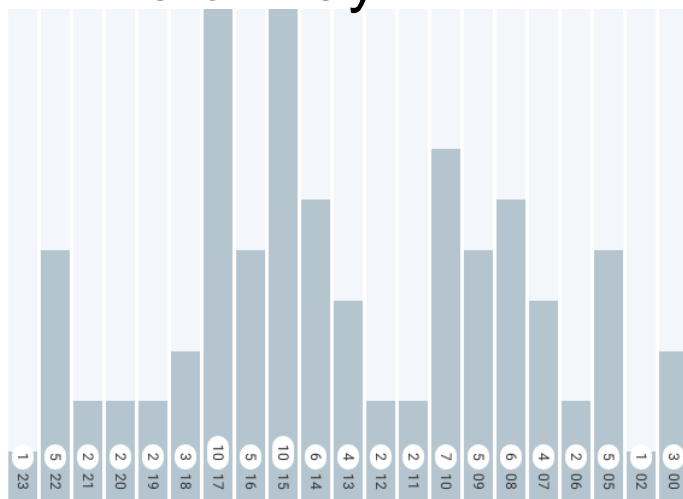


Knowledge:
Where + When = Better Law Enforcement

Months



Time of Day



European Goldfinch— *Carduelis c.*



European Goldfinch– All sightings



5862 Observations



PARKS

ENCYCLOPEDIA

DATA

RESEARCH MAP

TOOLS

Search

Ben Rosenberg

Observations

Observers

Documents

Reports From Public

Map Items

Management Plans

Observations Charts

Knowledge Items

Filter Observations

Update Results

☐ My Observations ☐ Observations To Handle

General Filters

Category

Date

Last 7 Days

Last 30 Days

Current Year

From:

2010-01-01

To:

2022-06-01

Date Window

End Date Window

Months

Observer

External Contact

External Person

Observations

Observations - Filter Results (5,862)

[Display On Research Map](#) • [Display On Heat Map](#) • [Display On Axis Table](#) • [Display On Domain Reporting](#)

Date: 2010-01-01 - 2022-06-01

Taxon (Animals And Plants): Carduelis Carduelis

Sort By: Reporting Date

Yesterday

12:09 P.M.

Carduelis Carduelis

Ranger Area Southern Golan



Georgi Norkin
Regional
Ranger

May 30, 2022

2:36 P.M.

Carduelis Carduelis

Yesterday

8:30 A.M.

Carduelis Carduelis

Ranger Area Hermon



Ayman
Gottani
Reserved
Inspector

May 30, 2022

8:28 A.M.

Carduelis Carduelis

May 30, 2022

2:45 P.M.

Carduelis Carduelis

Ranger Area Gilboa



Roy Rabin
Regional
Ranger

May 30, 2022

8:21 A.M.

Carduelis Carduelis

May 30, 2022

2:45 P.M.

Carduelis Carduelis

Ranger Area Gilboa



Roy Rabin
Regional
Ranger

May 29, 2022

5:26 P.M.

Carduelis C

עזרה

European Goldfinch– All sightings



PARKS

ENCYCLOPEDIA

DATA

RESEARCH MAP

TOOLS

Search

Ben Rosenberg

+99

export map share map

[-242597:656263] [30.3223:31.9055]

Observations

Total observations on map : 5862

Filtering

Research

Date: 2010-01-01 - 2022-06-01

Taxon (Animals And Plants): Carduelis Carduelis

Update Results

☐ My Observations

☐ Observations To Handle

General Filters

Category

Date

Last 7 Days

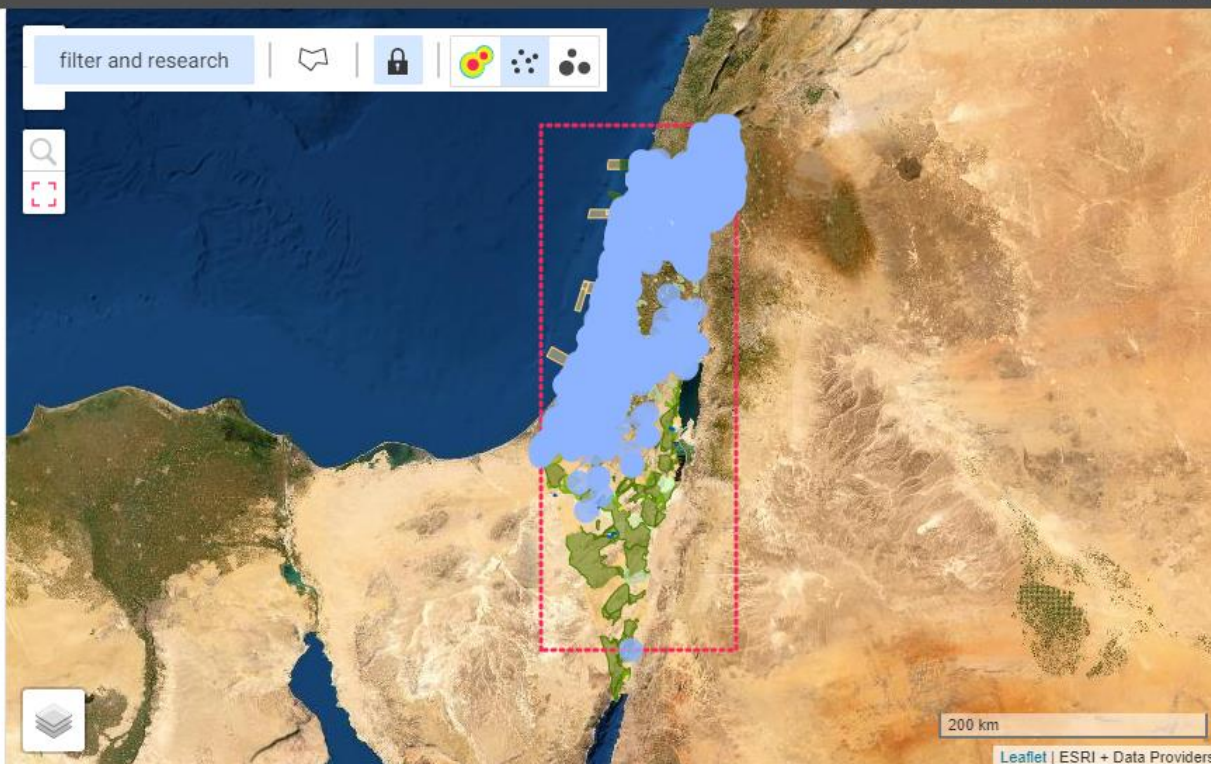
Last 30 Days

Current Year

From:

2010-01-01

To:



European Goldfinch– Law Enforcement



Trapping by nets
Crossbred with Canary
“Banduk/Bastared”
“Pet” Industry



PARKS

ENCYCLOPEDIA

DATA

RESEARCH MAP

TOOLS

Search

Ben Rosenberg

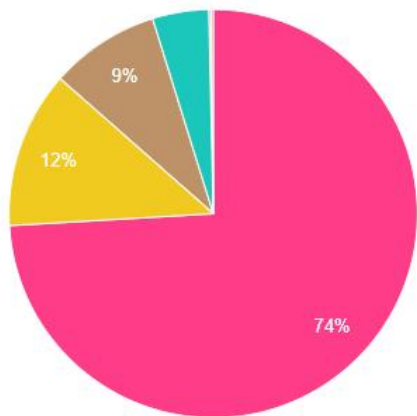
export map share map

[5075:726958] [32.9205:32.6162]

root category

Enforcement (563)

category (6 groups)



Poaching 417 (74.1%) | Possession 70 (12.5%) |
search warrants 49 (8.8%) | Trade 25 (4.5%) |
Forwarding 1 (0.2%) | Poaching Indications 1 (0.2%)

filter and research



100 km

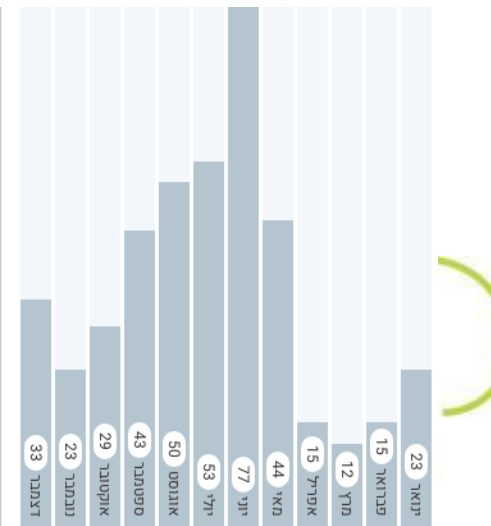
Leaflet | ESRI + Data Provider

Improving law Enforcement Efforts

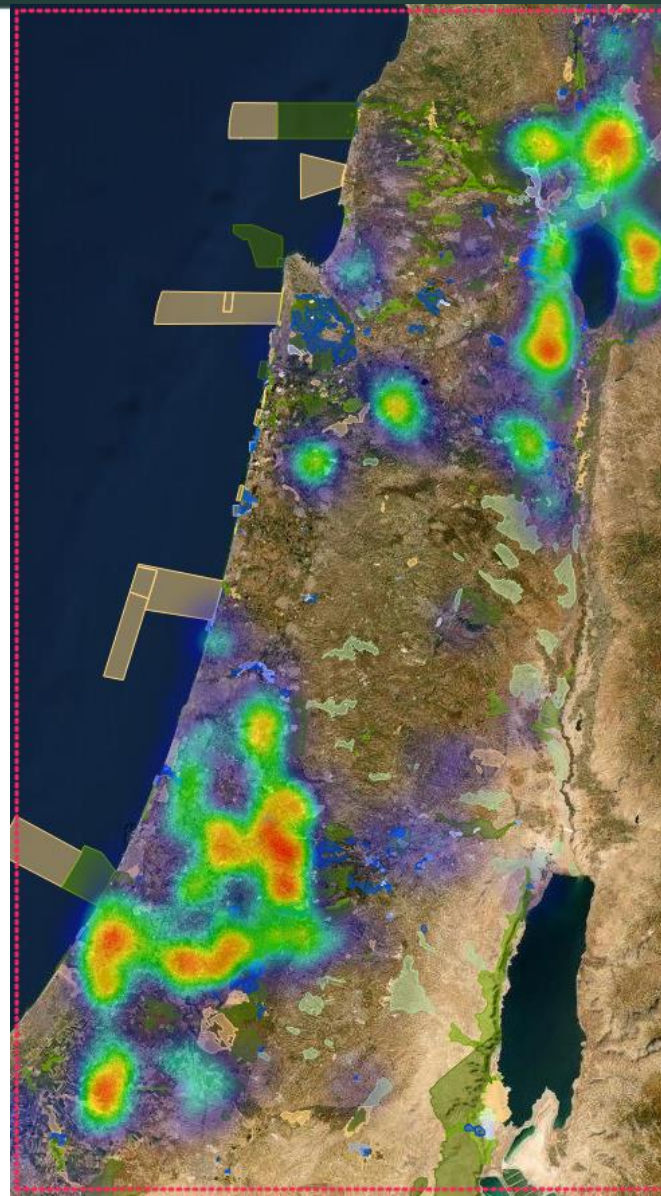
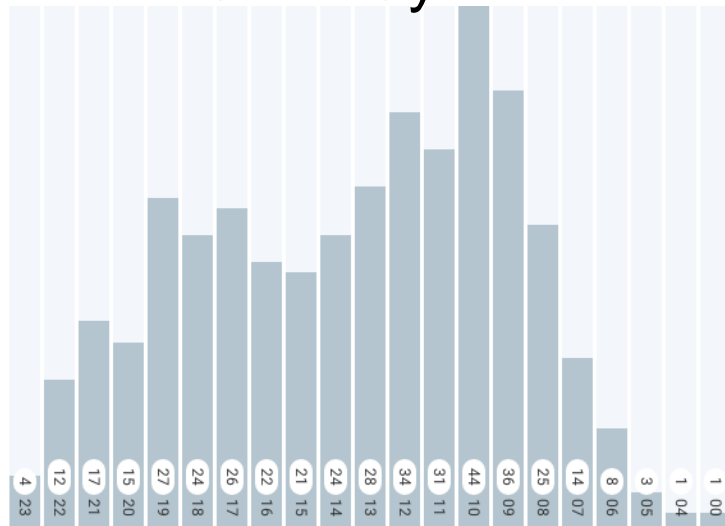
Knowledge:

Where + When = Better Law Enforcement

Months



Time of Day



Wildlife Poisoning Alert System

Poisoning Location-Aware using GPS Tagged Vultures



X43

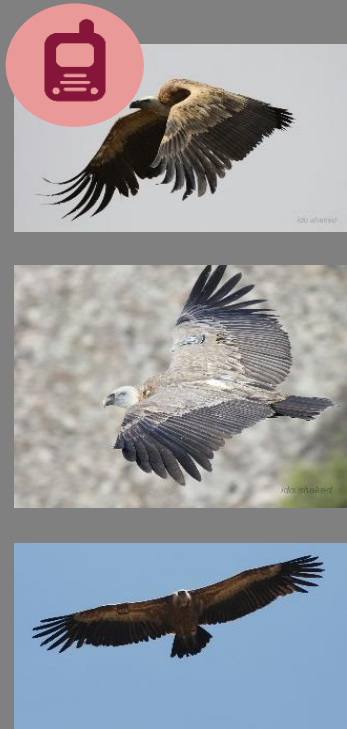


Settings

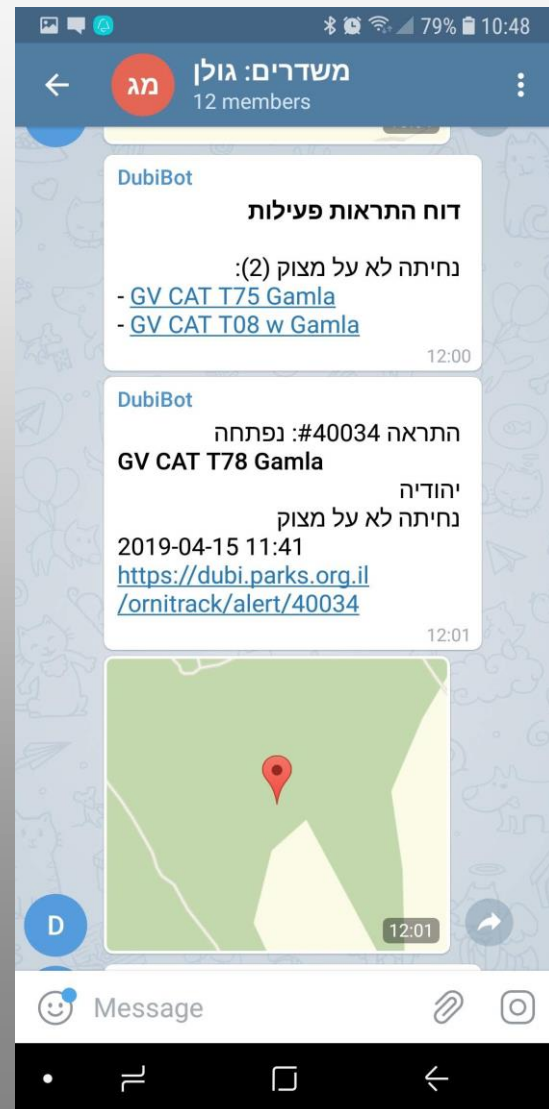
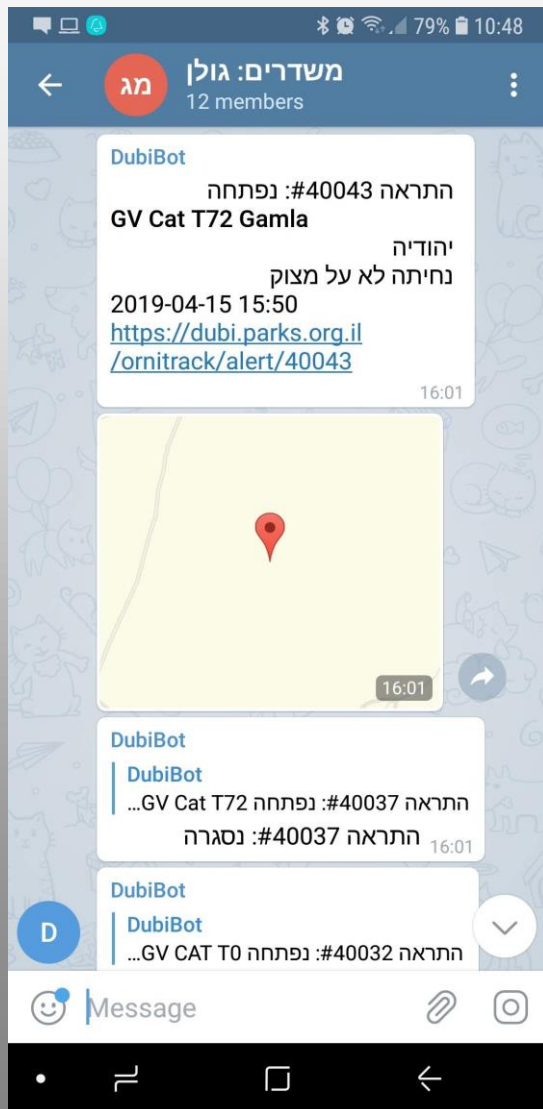
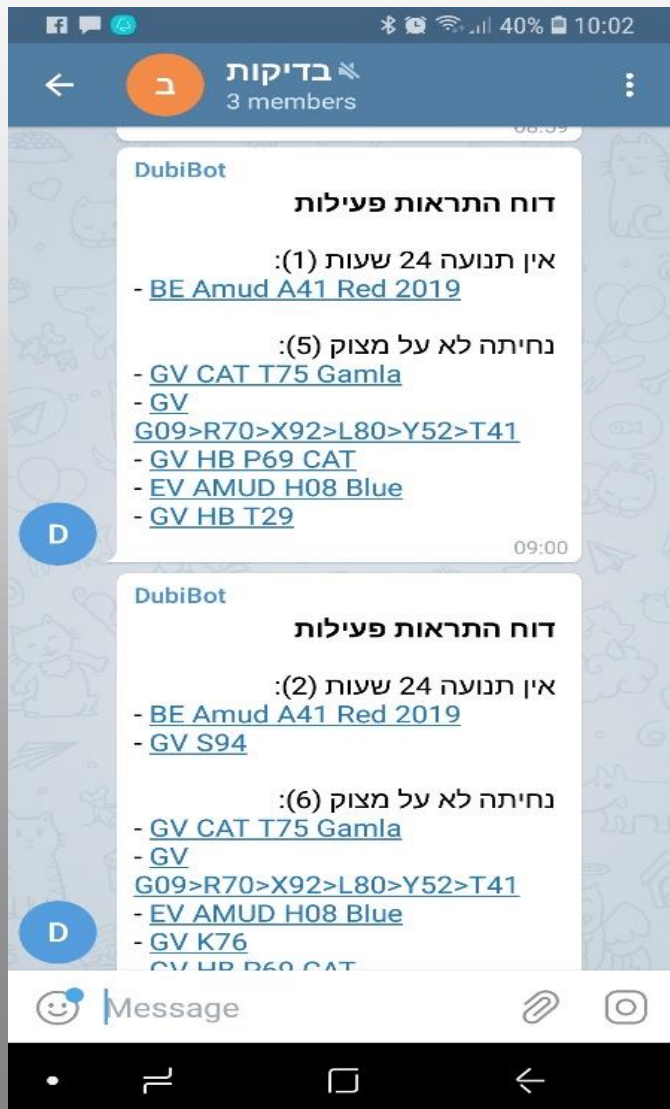


Findings & action
Alert system

Ground
team



Telegram Alerts



Alert details

#התראה 40075

התראה פעילה

נחיתה לא על מצוק

מרחק למצוק: 117.0m

כרמל

נשר מקראי

Google Maps

GV HB P69 CAT

גרפים

מפות

יומן

כן

שודרו נתונים מאז

לא

זוהתה תנועה מאז

09:11

פתיחת התראה

תאריך: 17-04-2019

לפני 19 דקות

08:55

שידור אחרון

תאריך: 17-04-2019

לפני 36 דקות

08:50

זמן הטריגר

תאריך: 17-04-2019

לפני 40 דקות

08:50

תנועה אחרונה

תאריך: 17-04-2019

לפני 40 דקות

08:50

מיקום ידוע אחרון

תאריך: 17-04-2019

לפני 40 דקות

<https://dubl.parks.org.il/ornitrack/alert/40075/>

#התראה 40075

התראה פעילה

נחיתה לא על מצוק

מרחק למצוק: 117.0m

כרמל

נשר מקראי

Google Maps

GV HB P69 CAT

גרפים

מפות

יומן

תרשים טמפרטורה

16-04-2019 08:51 - 17-04-2019 08:50

GV HB P69 CAT

תרשים תאוצה

GV HB P69 CAT

#התראה 40075

התראה פעילה

נחיתה לא על מצוק

מרחק למצוק: 117.0m

כרמל

נשר מקראי

Google Maps

GV HB P69 CAT

גרפים

מפות

יומן

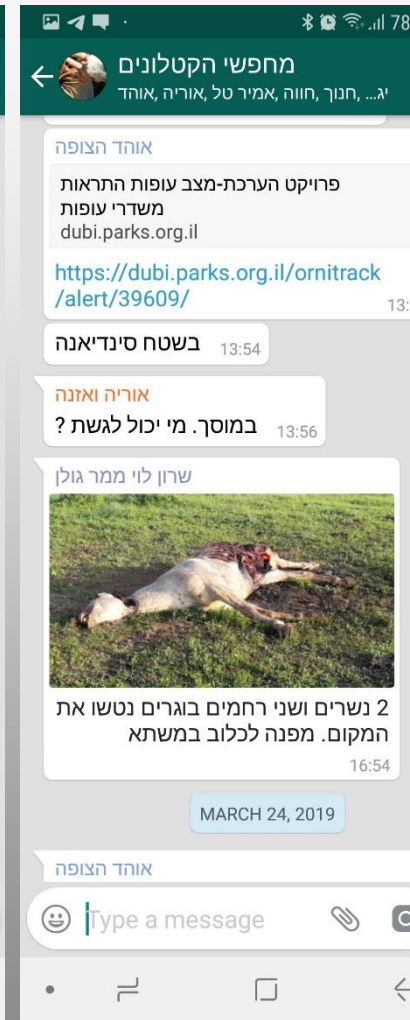
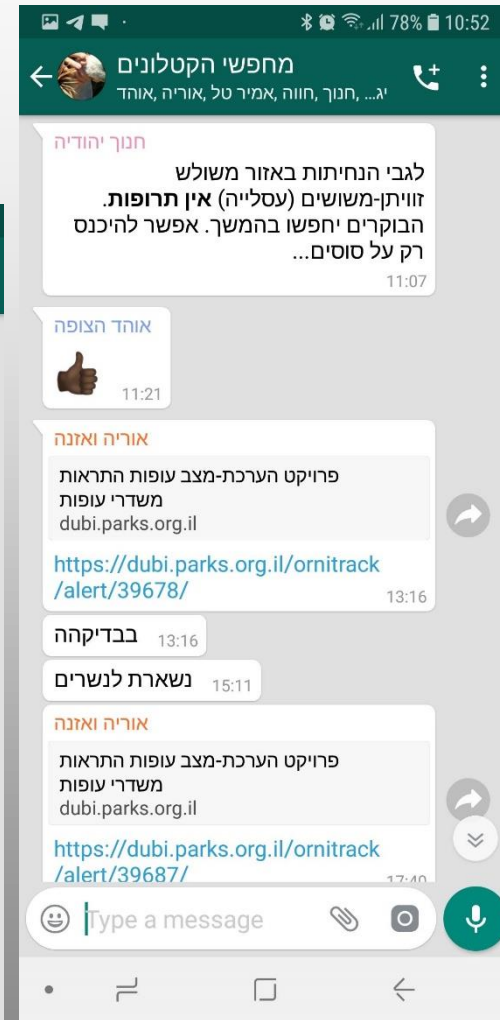
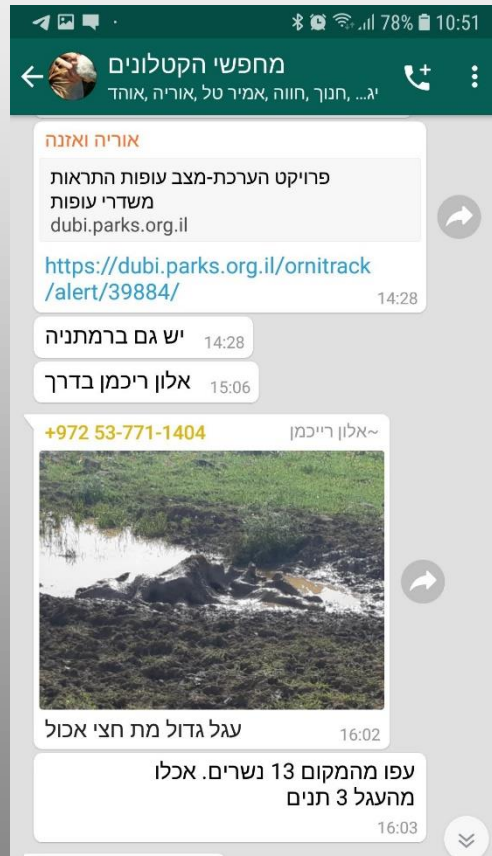
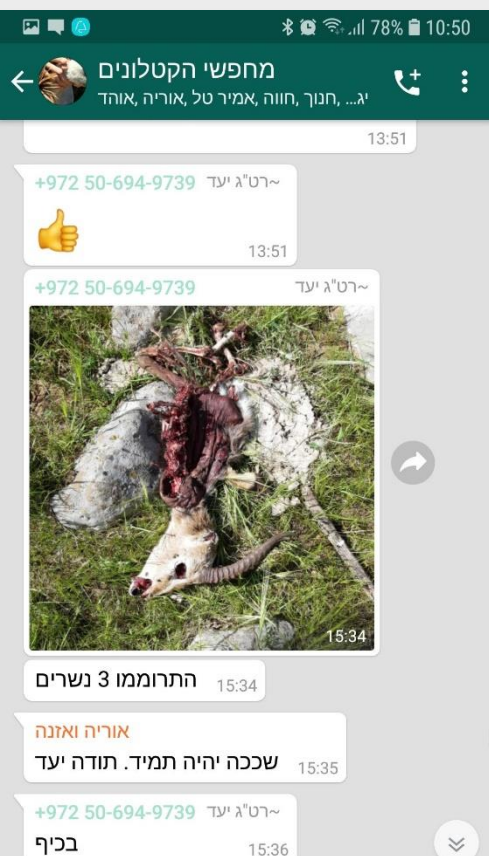
מיקום הטריגר

ניתן להחליף מפות רקע

מיקום ידוע אחרון

נחיתה על הקרקע: כן, מהירות: 0 קמ"ש

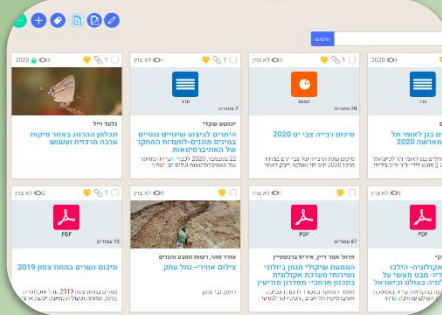
Ground team work



Data collection



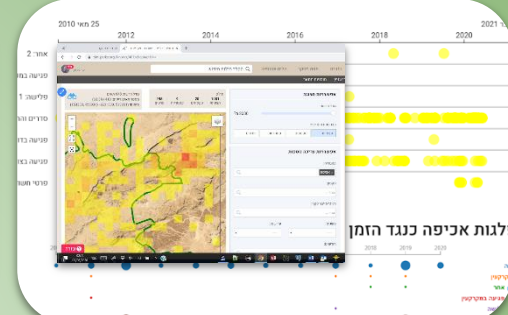
Document management



Encyclopedia



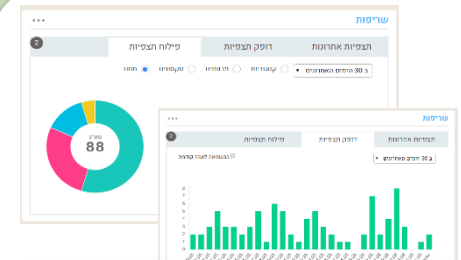
Data analysis



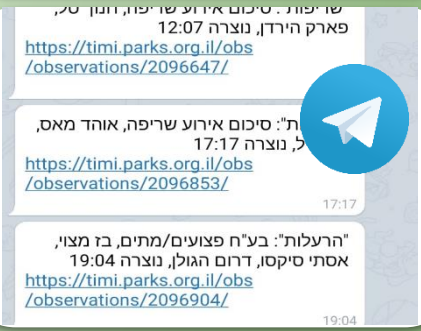
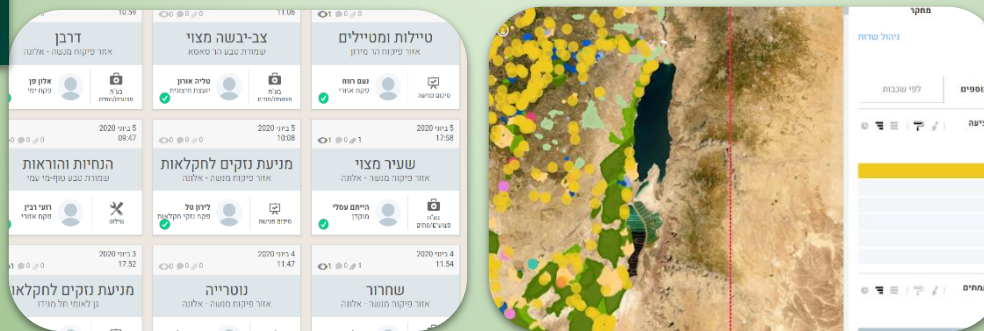
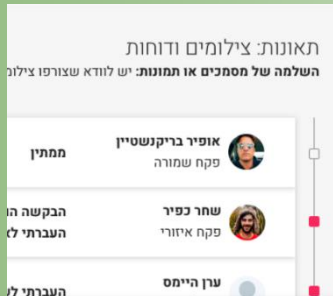
External systems



Dashboards



Process management



Custom reporting

Data

GIS

Alerts

Thank you

