

Results 2023 of the field studies on Albanian Saddle Bush-cricket (*Uromenus dyrrhachiacus*) Project number 220529928

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1. The global target of the project 220529928

This project covers only the urgent actions to save the species in 2023. When completed, we will have a better vision of the situation and threats and how to mitigate these threats with identified stakeholders, and we will ask for a next step project after.

Urgent actions are:

- 1- Get an accurate status of remaining populations in its restricted distribution area.
- 2 - Start an ex-situ breeding to save the species from extinction because habitat destruction are currently running fast in this area and we must have enough individuals to repopulate habitat when recovered.
- 3 - Find motivated local actors from environmental NGO of Durres and train them to find the species, the laid eggs and to be able to displace individuals/eggs in case of urgency. They will have to find and contact the appropriate stakeholders to avoid or mitigate the threats.

This report concerns the point 1 (field studies)



2. The goal of the field studies

The goal is:

- To know accurately the current distribution of the species and if it is subdivided or not in separated subpopulations.
- To assess the status of the populations for each studied locality in order to obtain a global assessment.
- To note the potential threat at short and medium term

For that we organised one full week study with all the team (4 persons) at a period (second half of June) where we can find sub-adults and early adults, easy to identify without doubt and when the species is more visible and abundant, before natural predation. Then, additional visit on supposed suitable localities have been carried out along July to refine our vision.



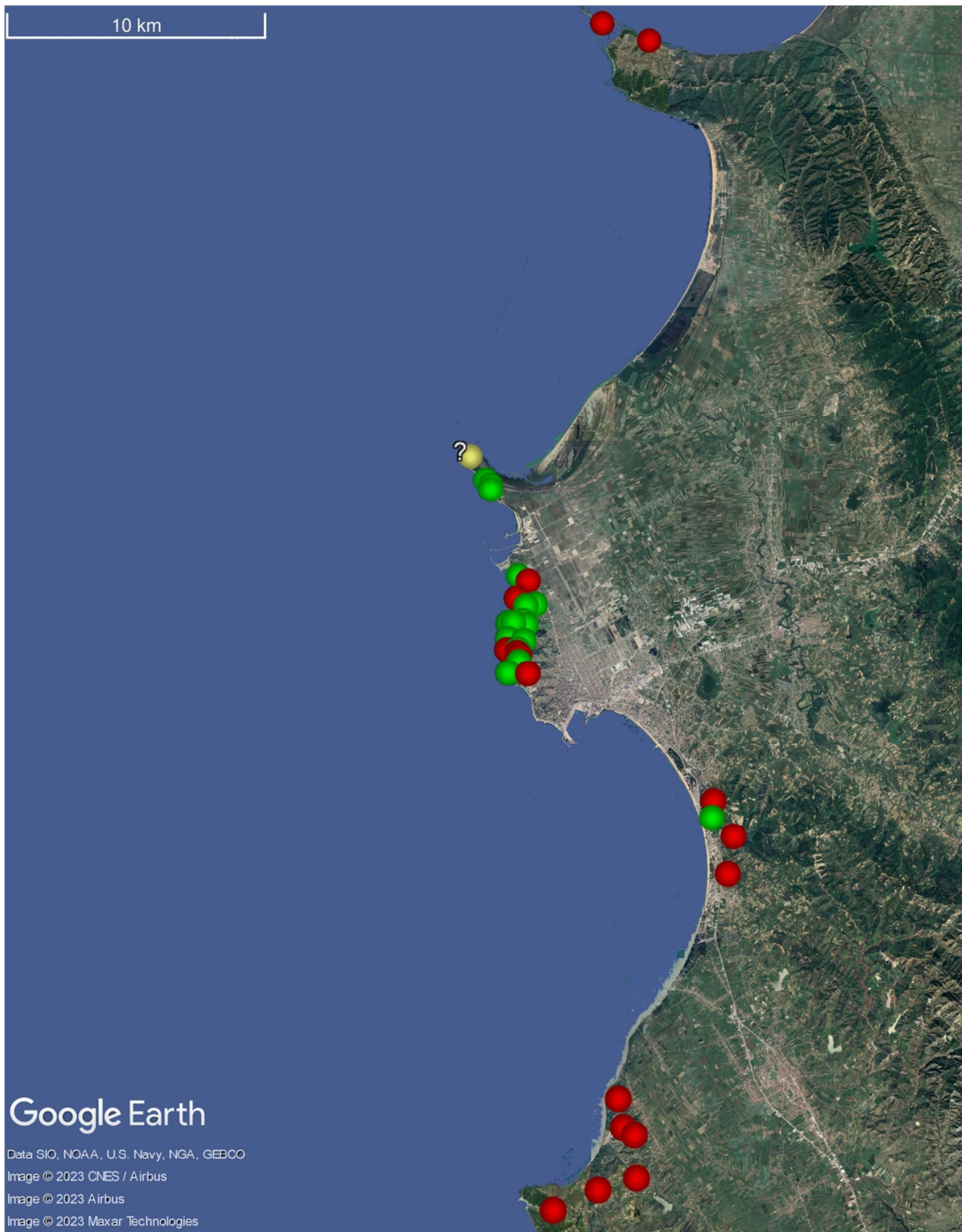
Chain of hills along coastline, located north of the town of Durrës. At the end of this chain, appears the cape of Portez (Photo taken with a drone).

3. Activities completed

Field studies have been carried out as follows:

- 19 June 2023: One locality near Portez beach, west of Rinia, in the north of Durrës, and one locality at the level of the pass East-West, in the middle of the hills located to the north of Durrës. Study performed by all the team (4 persons).
- 20 June 2023: One locality between Shetaj and the cape Rodonit, and one locality on the Rodonit cape. Study performed by all the team (4 persons).
- 21 June 2023: One locality on the hills in the northwest of Durrës, between the two water reserve lakes, and one locality on the south of the hills, on the edge, above the town. Study performed by all the team (4 persons).
- 22 June 2023: One locality under the military radar of Rinia, in the south of the new port, and 4 localities along the coastline (dust road from the town to the north) along the west of the hills. Study performed by all the team (4 persons).
- 23 June 2023: Two localities located near Dedej, in the south of Durrës, and one locality near Golem. Study performed by all the team (4 persons).
- 24 June 2023: One locality at the pass of Spitallë (same as 19 June), to measure the evolution of the ratio adults/sub-adults after 5 days and perform a first evaluation of the density. Two localities located lower on the east side of the hill, at lower altitude. Study performed by all the team (4 persons).
- 25 June 2023: Five localities located on the east side of the hills, from (under) the antenna of Durres, to the cemetery located in the northeast of the hills. Study performed by all the team (4 persons).
- 2 July 2023: Three localities at the cemetery level, starting just above the cemetery and up (west direction) to the top of the hill. Study performed by the Albanian team (2 persons).
- 9 July 2023: One locality in the south of Durrës to estimate the distribution area of the southern population. The other attempts to extend researches around the locality with presence were unsuccessful because all were private areas with no access. Study performed by the Albanian team (2 persons).
- 14 July 2023: One locality at the pass of Spitallë (same as 19 and 24 June), to measure the evolution of the density of adults. Westside of the hill (side near the sea). Study performed by the French team (2 persons).
- 15 July 2023: One locality at the pass of Spitallë (same as 19 and 24 June), to measure the evolution of the density of adults. Eastside of the hill. Study performed by the French team (2 persons).
- 16 July 2023: Six localities located on the hills between Karpen and the cape Lagjit, in the west of Kavaje, south of the gulf of Durrës. Study performed by the Albanian team (2 persons).

In addition, colleagues for Netherland went in the Portez site the 29 July 2023 and reported their observations on [observation.org](https://www.observation.org).

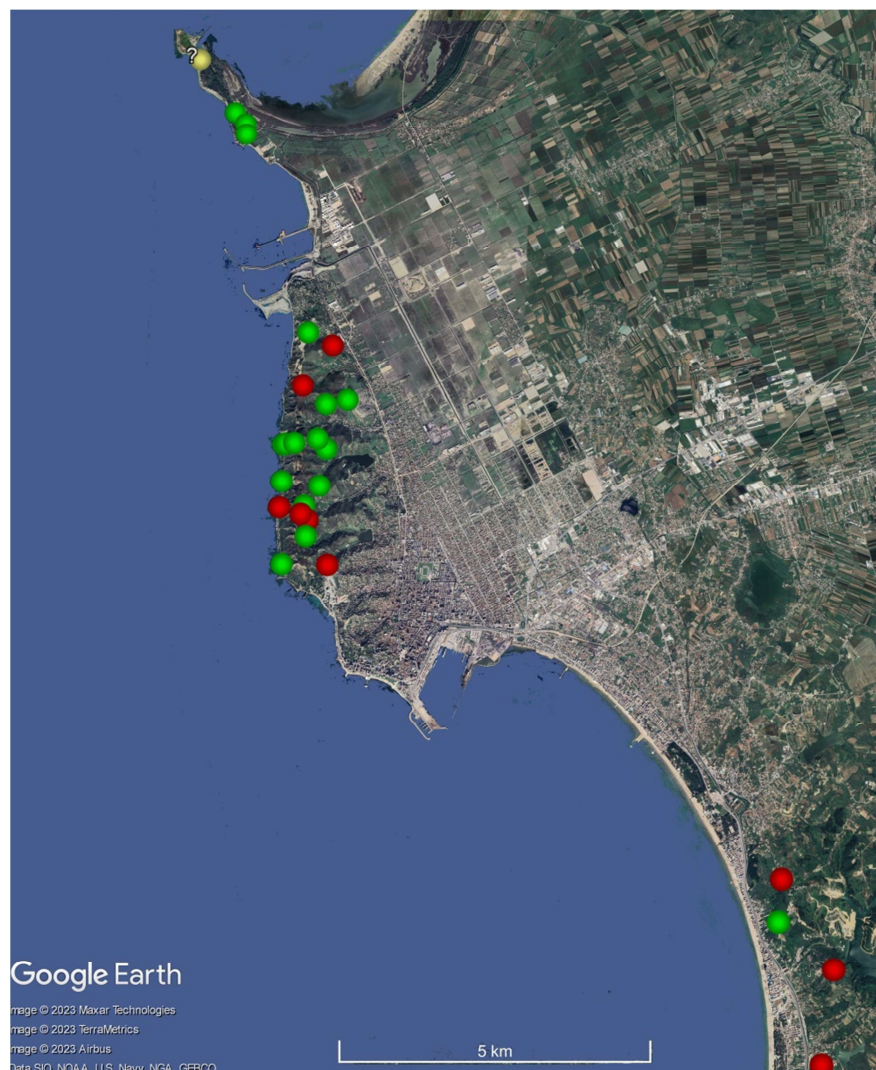


Map of localities studied: Green with presence of *Uromenus*, Red with absence of *Uromenus*, Yellow, presence unknown.

4. Results

Our on-field 2023 results are as follows, the global species distribution is divided into 3 separated populations.

- The main population is located on both sides of the chain of hills located north of Durres. The distribution area is small but the species can be locally abundant in some spots, especially in the middle near a pass (Spitallë). The threat is the destruction of the hills (soil collected and displaced by a noria of trucks) currently in the northern part, near the new port, and in the southern part, near the town. AOO is about 2.6 km².
- The population of Portez, in the north of the new port is isolated and could disappear (work also on the ground of this area) if it is absent of the military area (has not been checked, the Albanian team did not obtain an authorisation to access to this area). AOO is much reduced: 0.2 km². Could be 0.4 km² is the presence of the species in the military zone of the cape is confirmed.
- One population in the south of Durres still exist but in a very restricted area. This population is at risk due to the urbanisation of the area. AOO is only 0.2 km².



- The species is absent from the other capes, in the north and in the south of Durres, despite some similarities of the biotope (nature of ground, composition of plants). Between these areas, the entire coastline has been used and changed by human activities for buildings and tourism.



The total sum of the area of occupancy (AOO), in yellow on the above map, of the 3 populations is only 3 km².

The EOO is about 35 km² and gives an idea of its area of occupancy, at least, in old time, before the extension of the town, a lot of decades ago. Now the area between the 3 AOO is definitively urbanized or destroyed and cannot become suitable for the species

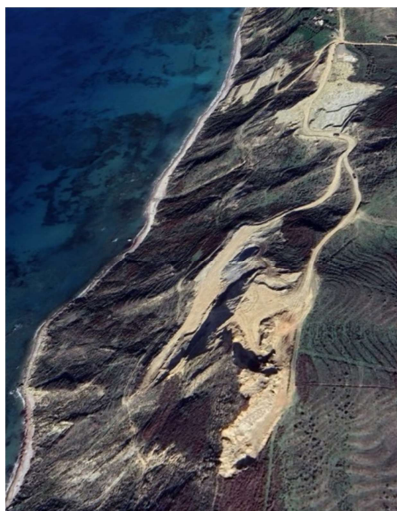
5. Core challenges and setbacks

The main challenge was to target appropriate localities in order to optimize our research time and answer to the maximum of questions concerning the current status of the species. For that, an accurate preparation was mandatory, using satellite maps to localize potential suitable habitats and also open topographic map to optimize our access time to the selected sites. In complement, adjustments were done after the direct observation of lands, the composition of plant structure, and modification by human activities in some cases.

The other challenge is for the next step. We observed again a lot of work with trucks removing the soil of hills near the new port (where a hill has entirely disappeared since a couple of years), and near the town. So the challenge is to find, address and convince the appropriate persons to consider and implement a conservation plan.



Destruction of habitat in southern part of the hills



... and also in the northern part of the chain of the hills



The setback concerns the access to the military area of the Portez cape, not allowed despite of the anticipation of formal request and the fact that the team was reduced to Albanian only members for this access. However, the impact of this issue on the global conclusion is minor, because the main population is not the population located close to this military area.

6. Other key observations and findings

The species particularly appreciate the habitats with wild flowers such as *Spartium junceum*, *Scolymus hispanicus*, *Foeniculum vulgare*, *Cichorium* sp., etc. It lays its eggs in the large stems of plants such as Asphodel, fennel or Spanish broom.

We noted that *Saga natoliae* was generally present in the biotopes suitable to *Uromenus dyrrhachiacus*, and more frequent where the Albanian Saddle Bush-cricket was abundant too.

It has to be noted that the area where the *Uromenus dyrrhachiacus* is relatively abundant has not always been a wild habitat. In the past, there were olive groves and vineyards, used in a traditional way, on the slopes of the hill, preserving also wild flowers and bushes among these agricultural lands. More than 20 years ago (according to discussion with old inhabitants), there were a fire and the use of this part of the hills (western part) has been abandoned.

In natura, the population size is decreasing relatively fast (40 % per fortnight roughly), due to the natural predation and the biotope more and more dry during the summer.



Female subadult eating flower of *Scolymus hispanicus*

7. Next phase

Within the frame of this grant

The most important now is the communication. All local stakeholders must be informed at least, and convinced if possible of the importance to act in order to save their endemic insect.

In the frame of this grant we are preparing a short video film, especially targeted for these stakeholders, and we will diffuse this film in the widest possible way.

In a future conservation plan

It will depend on the feedback we will have from our communication action. If we get a positive feedback, we will ask for a next step project in 2024 or 2025. If not, we will not be able to go further without willingness of stakeholders. But we are optimistic, according the different people already met on this topic.

