

National Wildlife Observation Network: A Citizen Science Project

Aleka Meliadou¹, Maria Ganoti¹

¹ANIMA-Hellenic Wildlife Care Association, Menelaou 134, 17676 Kallithea
www.wild-anima.gr | e-mail: wildlifecare@gmail.com | tel. +30-2109510075



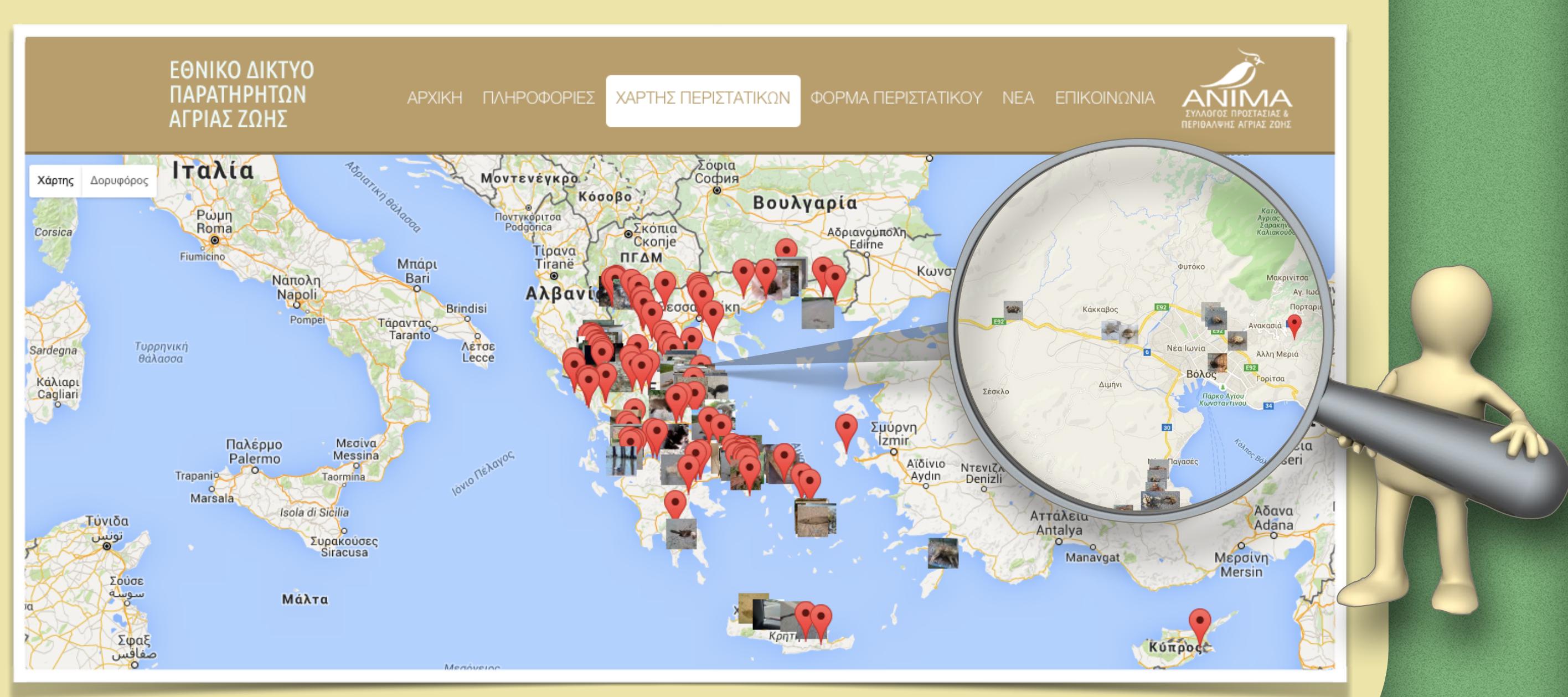
Abstract

The National Wildlife Observation Network (www.paratiro.gr) collects data on incidents of sick and injured wild animals in the whole Greek territory. The network contributes to the recording of the wild animal's injuries, deaths and their causes (e.g. road accidents, poaching, electrocution, etc.), while the processing of the collected data will highlight priority areas that need special interventions in order to reduce risks for wildlife. It is currently the only organized nation-wide effort to implement Citizen Science i.e. the research based mainly on the collection and analysis of data by citizens, scientists or not, on terrestrial biodiversity issues. It is based on the use of modern technology, which enables the use of new generation mobile phones that most citizens have at their disposal as devices for taking photos of the incidents, recording geographic data and commentary. The network exists since April 2015 and is operated by ANIMA - Hellenic Wildlife Care Association. Almost 100 citizens have reported nearly 300 incidents of dead or injured animals, within 5 months. Most of these incidents involve mammal roadkills (mainly hedgehogs, but also badgers, foxes, and martens).

Keywords: citizen science, biodiversity, roadkills, animal death causes

Introduction

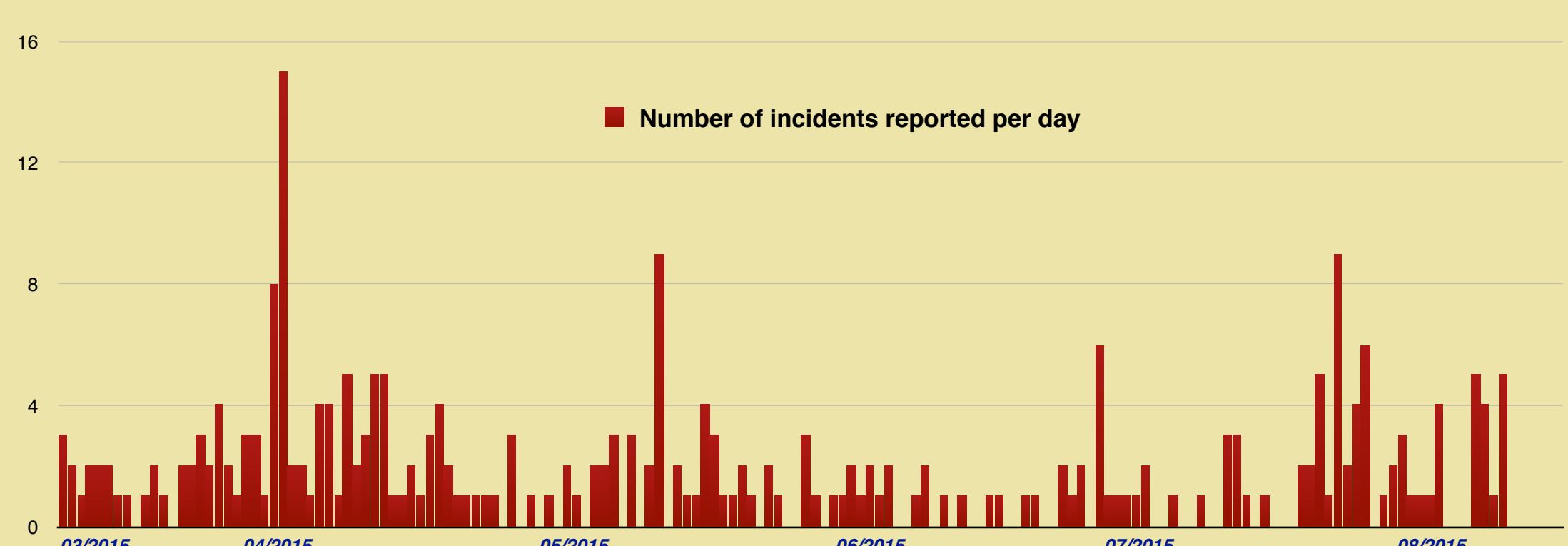
The National Wildlife Observation Network is a "Citizen Science" project operated by ANIMA, which has been running since mid-March 2015. The active involvement of the general public is the backbone of the project and is based on the operation of an electronic platform (paratiro.gr) in which citizens, scientists or not, report incidents of dead or injured animals. Such reporting provides information that will allow us to assess the extent and the scale of the problem, to identify basic underlying causes including local specificities, to suggest policy measures, to organize local activities etc.



Citizen science

Citizen science is the organized research in which the general public—who may or may not be trained in science—gather and / or analyse data on a voluntary basis. While the participants provide data to the scientists, they also acquire skills and gain knowledge, experience, and a deeper understanding of the scientific work. This improves integration between science, society and policy, leading to a more democratic research based on evidence-informed decision making. Citizen science is closely related to the new 2020 Europe strategy for a smart, sustainable and inclusive growth, aligning with a series of European policies and initiatives such as the "Digital Agenda for Europe" or the "Youth on the Move".

Citizen science is of extreme value for biodiversity monitoring. It can provide vast volumes of data in a short time period, taking advantage from the advancement in communication technologies such as the widespread proliferation of smart phone use by the general public. In Europe, there are many projects on biodiversity monitoring that use citizen science, in which the observations cover a broad range of information on species, habitats and ecosystems. In Greece, the National Wildlife Observation Network, is currently the only operative such initiative on terrestrial biodiversity issues.

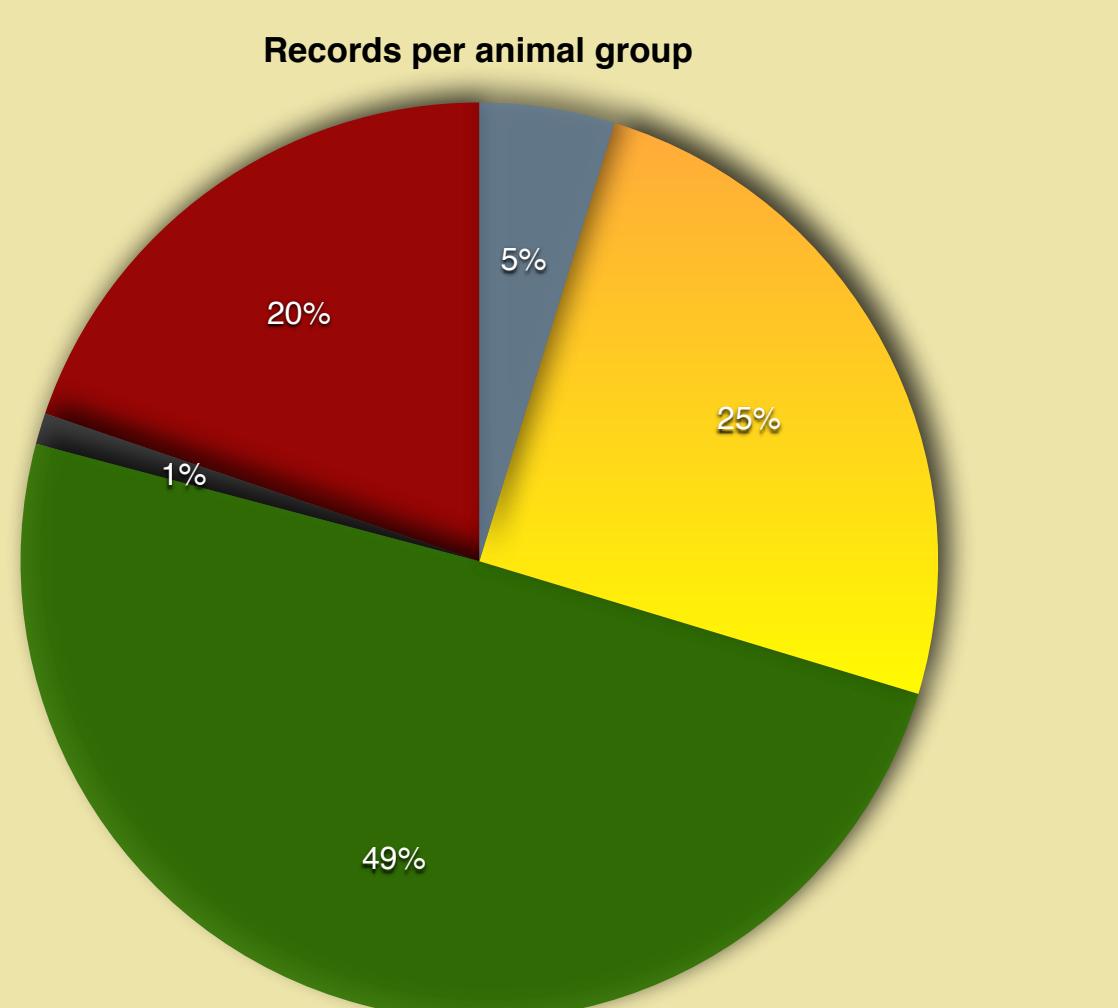


Results

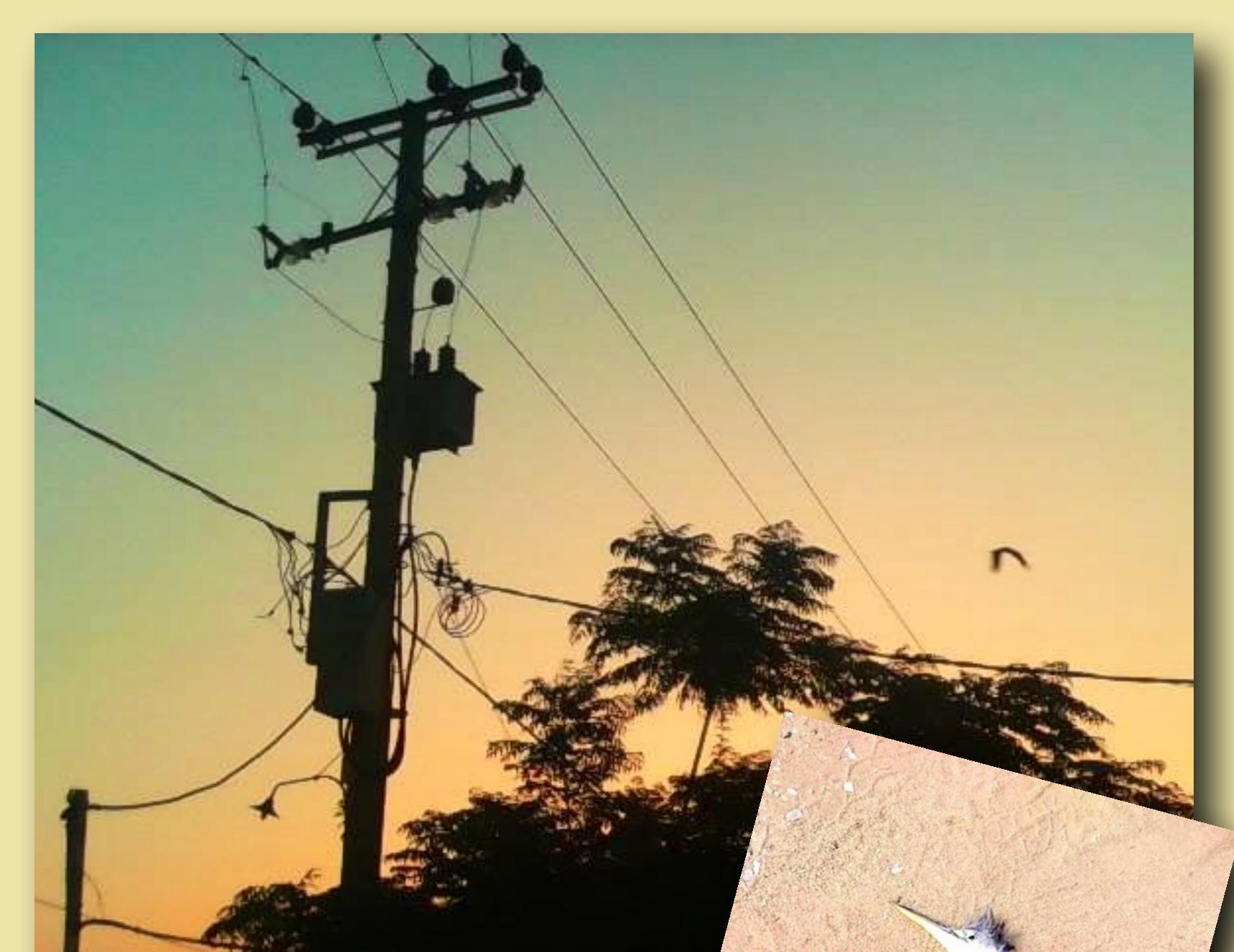
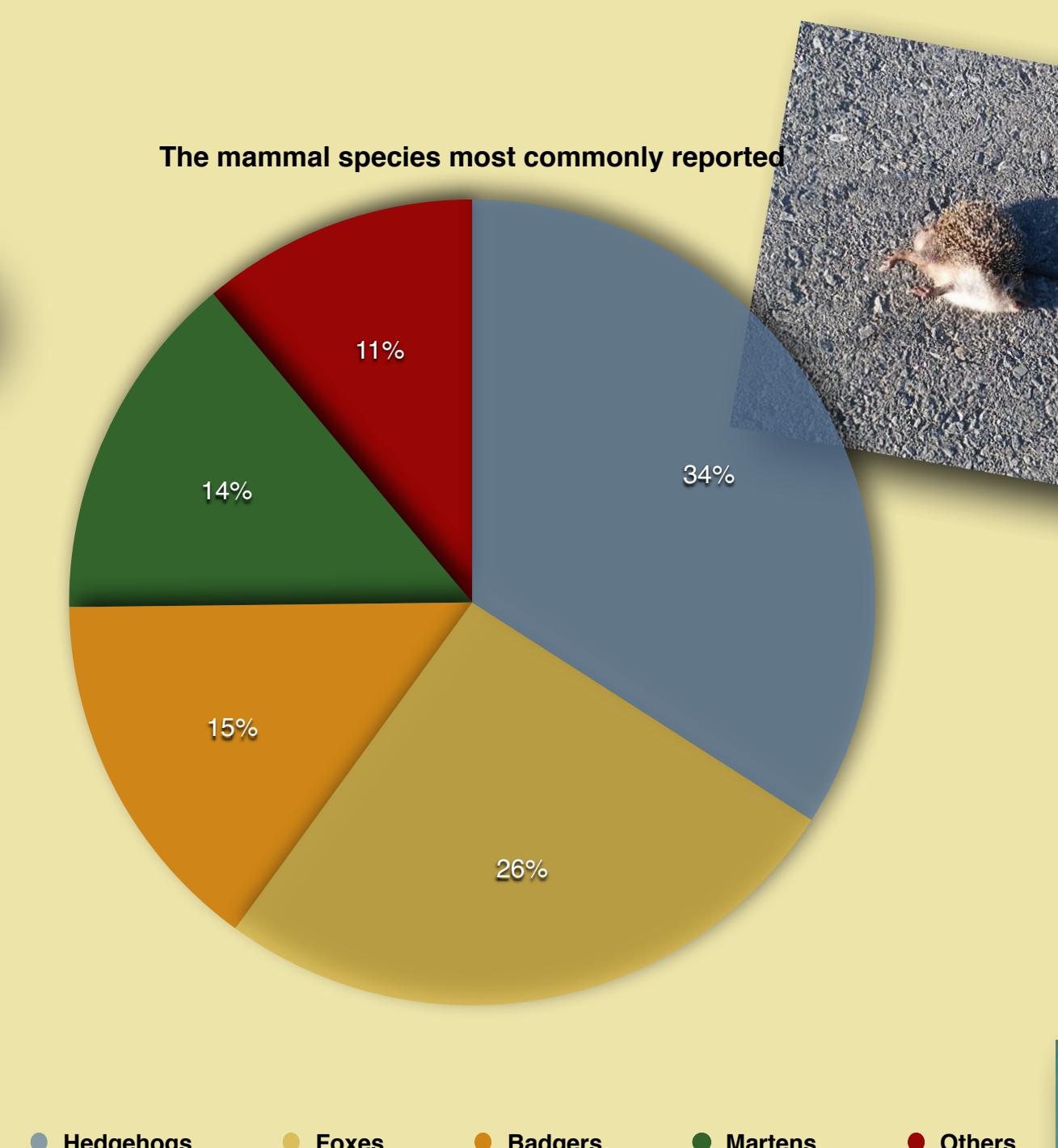
The platform was launched on mid-March 2015. Until the end of August 2015, 95 citizens had reported 275 observations of dead (88% of the records) or injured (12%) animals. Most of these observations (60%) are accompanied by a photo.

More than 80% of observations involve roadkills. This largely reflects the sampling effort, as observations across the roads are easier and do not require particular intensity of field work. Nevertheless, it gives us an idea of the extent of this problem.

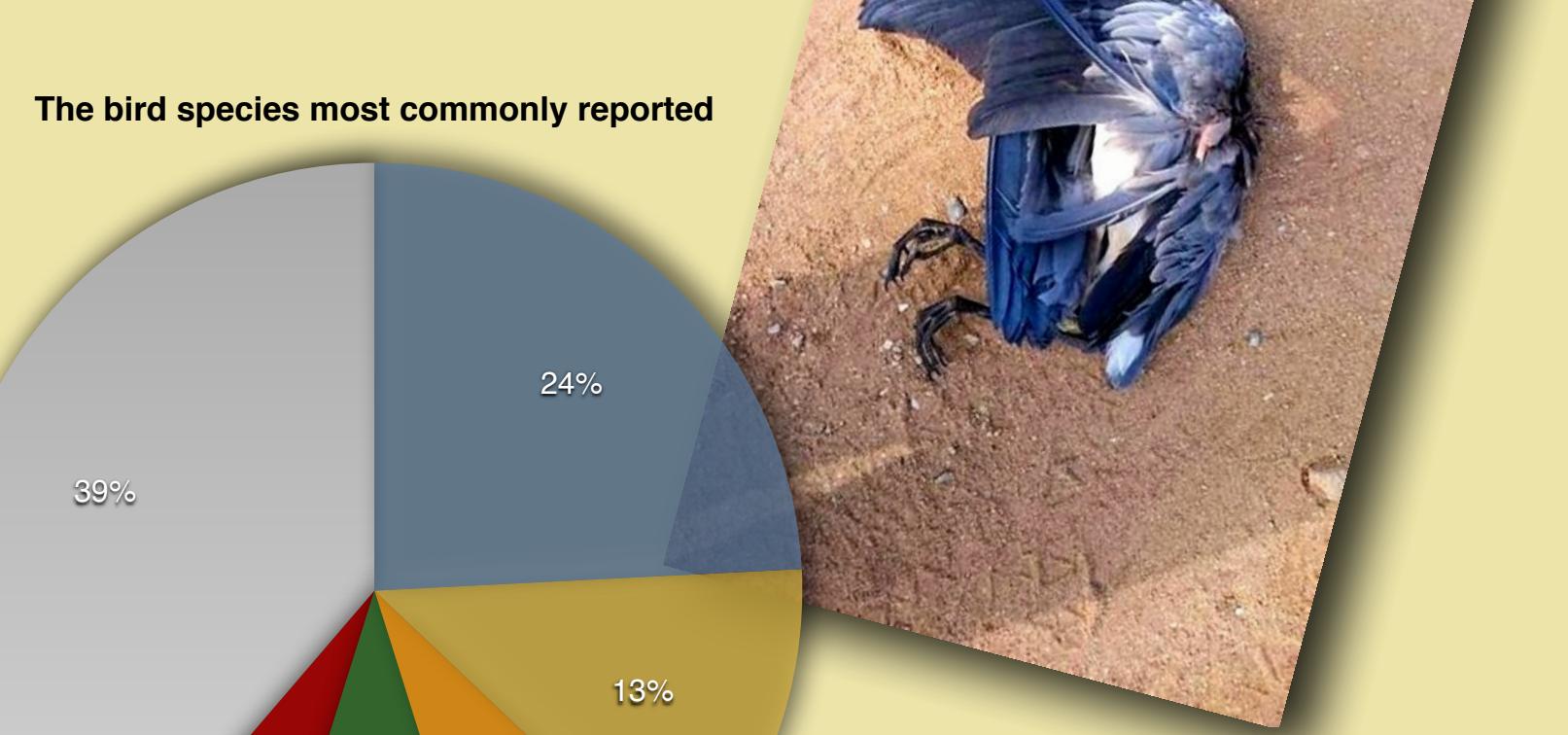
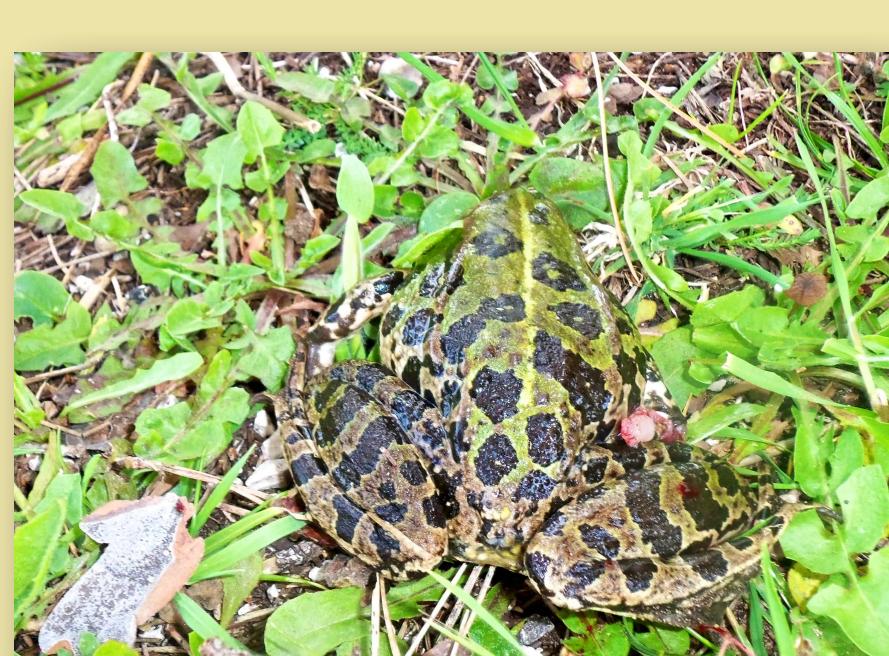
The 49% of all records regard mammals, 25% birds, 20% reptiles, 1% amphibians and 5% domestic animals (mainly cats and dogs).



In regards to mammals, roadkills of hedgehogs are the most commonly reported incidents, followed by recording on foxes, badgers, and martens.

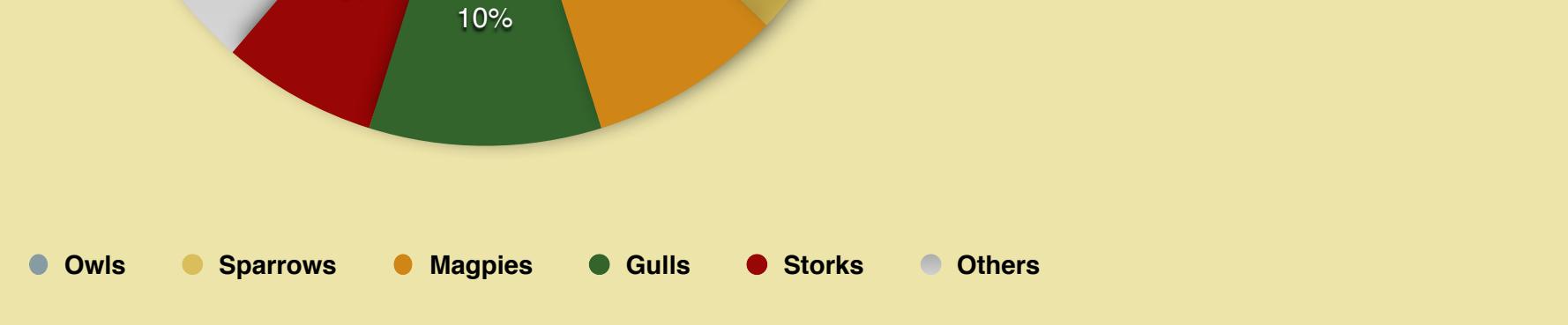


Owls, sparrows, and magpies are the most commonly reported incidents involving birds. Electrocution is a considerable mortality factor for this group.



The bird species most commonly reported

In regards to reptiles, 57% of the records of this group involve snakes and 39% turtles. Roadkill is the major mortality factor for this group.



Acknowledgements

The project is funded by Iceland, Liechtenstein and Norway under the EEA Grants Greek NGO Programme "We are all Citizens". The Bodossaki Foundation is the Fund Operator of this Programme. This work would not be possible without the eagerness and the commitment of all those volunteers who entered their reporting.