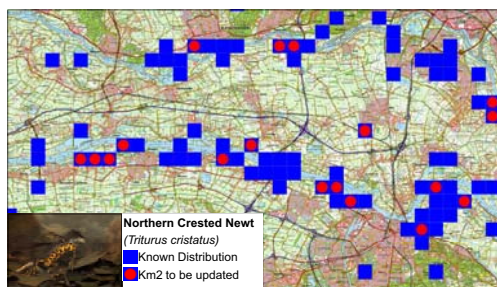


# Updating data on distribution of herpetofauna with the help of volunteers

**Introduction** Since the mid-eighties RAVON have been collecting data on distribution of species. The oldest record dates back to the end of the nineteenth century. At present, the number of records amounts up to well over 400.000. A large part of these data can be considered as "out of date" and are unfit to describe the actual distribution of species. Therefore updating of our data on distribution of species is one of our main goals. The focus lies on those species that are relevant for policy making. In 2004 we started a project that aims to update the data with the use of volunteers.



**Methods** Old records from the RAVON-database are selected and represented on the RAVON website in the form of square kilometres (see figure below). These square kilometres can be selected by volunteers. For each species a certain number of visits has been determined. If the species has not been found after the recommended number of visits, it is assumed the species is no longer present in that specific square kilometre.



Distribution of the Northern crested newt: from blue squares with red dots in it no records have been recorded in the last 6 years. Those squares are selected in this project and have to be updated.

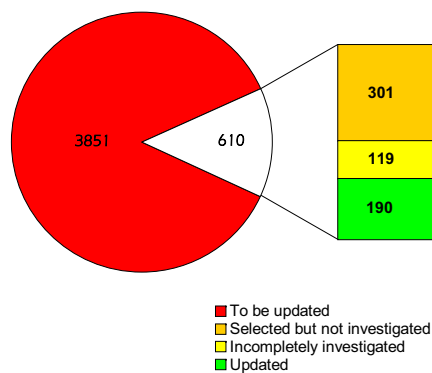
## Recruiting volunteers

- Website + forum
- Field trips
- Brochures
- Magazine
- Presentations
- Courses



**Results** As can be seen in the next figure, a large part of the selected square kilometres results in an updated record in the database. However, it is also clear that some square kilometres are only partially investigated or not at all, despite the fact they were selected by volunteers. Incompletely investigated square kilometres are kept for further investigation in the next year, where they can be finished in less visits.

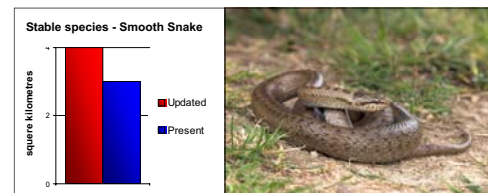
## Overview 2006



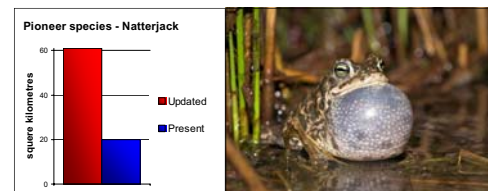
## Differences between species:

The chance to confirm the presence of a species on a certain location differs between species. Species, preferring stable habitats, are more likely to be still present in historical sites than species preferring pioneer habitats. The explanation is that stable habitats are likely to remain unchanged, whereas pioneer habitats develop due to succession.

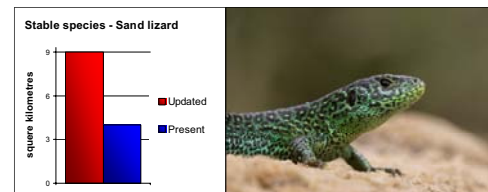
Species with low dispersal abilities are also more likely to be updated. Historical records of these species mostly result from stable populations while records of species with high dispersal abilities often result from a single migrating animal, roaming outside its normal range. Although these hypotheses are not always valid as can be seen from the figure below concerning the sand lizard (*Lacerta agilis*).



The smooth snake (*Coronella austriaca*) prefers stable habitats and is often still present in historical sites when the habitat has remained unchanged.



The natterjack (*Bufo calamita*) prefers pioneer habitats and often disappears from historical sites when the habitat has become unsuitable.

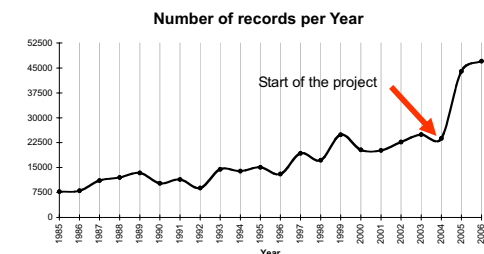


Although the sand lizard (*Lacerta agilis*) prefers stable habitats it often has disappeared from historical sites.



## Boost for the number of records per year:

Next to data on the selected species, a large quantity of data is collected on other species. Since the start of the updating project the number of data records entered per year has dramatically increased to well over 45.000. Linked to this project are several online data entry portals which enable quick and controlled data entering by volunteers all over the Netherlands.



The number of records per year increased significantly with the start of the project

**Conclusions** Working with volunteers to update data records on the distribution of species is a valuable tool. A large amount of data is collected and many volunteers show an increasing commitment to the protection and conservation of the species.

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Photography © Jelger Herder