

## Our main activities in research & education

### Small mammal studies

Our small mammal studies are older than the Association itself. Historically, our organization developed from a research group whose main objective was studying distribution and ecology of dormouse species (family Gliridae) in Hungary. Additionally this group also studied an other endangered small mammal species, Northern or rat-headed vole (*Microtus oeconomus*) since 1995.

The Oak Association for Nature Conservation followed the traditions of this small research group. So, for a long time, one of the main objectives of our studies were the three dormouse species occurring in Hungary (*Muscardinus avellanarius*; *Myoxus glis*, *Dryomys nitedula*). Studies of their distribution in Hungary and habitat preference provided significant results and.

Subsequently, the Association organized a countrywide study about the spread and nature conservation importance of red squirrel (*Sciurus vulgaris*), the so called “Mókusleső” (“Squirrel-watcher”). In this program we involved voluntary data providers as “citizen scientists”. Later on, this program has been enlarged into a country-wide web-based data collecting project called “Vadonleső” (“Wildlife-watcher”). People encountering species involved in this program are requested to upload their findings to the webpage: [www.vadonleso.hu](http://www.vadonleso.hu). Thus results of accidental observations become valuable data on distribution of currently 16 well-recognizable plant animal species, among them the following small mammals: common hedgehog (*Erinaceus roumanicus*), common ground-squirrel (*Spermophilus citellus*) and common mole (*Talpa europaea*).

### Amphibian and reptile studies

Our amphibian and reptile studies are as old as the Association. The herpetologist team was formed in 1998, with Beáta Ujvári’s leadership. Initial research dealt with the spread and habitat of the “rákosi” subspecies of meadow viper (*Vipera ursinii rakosiensis*), the most endangered species of the herpetofauna in Hungary.

Research on the Great or Caspian whipsnake (*Coluber caspius*) started in 1999 in cooperation with the Hungarian Natural History Museum. Our other significant herpetology program is coordination the amphibian and reptile protocol of Hungarian Biodiversity Monitoring System, since 2001, under the guidance of dr. István Kiss, Associate Professor of Department of Zoology and Animal Ecology, Szent István University. Further amphibian studies, coordinated by him as well, include habitat conservation of an endangered population of fire salamander (*Salamandra salamandra*) and long-term monitoring of reproduction of brown toad (*Bufo bufo*) populations.

### Entomological studies

The primary target group of our entomological studies is Apoidea, especially the wild bees. Considering bees, one recalls first of all honey bee (*Apis mellifera*) since this species is domesticated and well known of its products (honey, bee wax, pollen, propolis, etc.). Wild bees are much less renown and hardly anyone knows that only in the Carpathian basin there are approx. 600 bee species apart from the honey bee.

Our activities related to wild bees are the following:

- Elaboration and testing the pollinator protocol of the Hungarian Biodiversity Monitoring System.
- Studies on the distribution of bumblebee species in Hungary.
- Survey of the threatened status of bumblebee species in Hungary. As a result of these studies, we achieved the protection of 11 bumblebee species.
- Faunistic studies on wild bee assemblages of extensively and intensely cultivated pastures.

## Environmental nematological studies

Nematodes (or “eelworms”) are among the most species-rich and by far the most numerous animal group in soils and aquatic sediments. Therefore they are not only very important players and often regulators in all kinds of ecological processes, but excellent biological indicators as well.

Our nematode-related studies focussing on environmental protection and nature conservation tasks are quite unique among NGO’s even in a European scale.

These studies comprise of a nematode community analysis based on the proportion of taxa with different feeding types and life strategies. As a result, several parameters can be calculated (such as diversity and maturity indices) that reveal the quality of the given habitat (conditions, naturalness, etc.)

The nematological studies within the framework of our Association included these:

- Studying effects of the heavy metal and cyanide pollution on the Tisza river in spring 2000.
- Impact assessment of the hydrological works (dam construction and related disturbances) in the Szigetköz region as a part of the related zoological monitoring project.

## Botanical studies

The botanical studies of our Association have been coordinated by Balázs Pintér. Our main activity was the botanical survey of Mount Naszály, performed in several steps in the previous years.

Another study was the survey of the threatened relict species, Tatarian Sea-kale (*Crambe tataria*) population in the East-Cserhát region.

## Environmental education

Oak Association for Nature Conservation performs various actions in the field of environmental education. Our activities are strongly related to the Gödöllő campus of Szent István University and within this, principally to the Department of Zoology and Animal Ecology. Leaders of the Association often carry out teaching programs related to zoology, ecology and bee-keeping.

Since 1999, we regularly organize field practicals as summer camps that are also a part of the teaching program of the Department. The late summer camp is performed within the framework of an eligible course entitled “Practicals of environmental protection and nature conservation”, while our other camp is the basis of another course, entitled “Bioindication in wetlands”.

Members of our Association regularly participate as lecturers in the field scout teaching courses organized by “Göncöl” and “Magosfa” foundations, especially with lectures on field research in entomology.