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**ПРОЕКТ «ФЛОРА ЛИШАЙНИКОВ
ТУРЦИИ»**

**TOWARDS THE «LICHEN FLORA
OF TURKEY»**

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В Турции есть большое разнообразие местообитаний, где соседствуют средиземноморские, континентальные (степные и пустынные) и океанические виды лишайников. В Средиземноморских и континентальных регионах Евразии не хватает комплексных качественных определителей лишайников, в связи с чем «Флора Турции» могла бы большей частью восполнить этот пробел. Нами сделан первый шаг в этом направлении; в процессе изучения возможно наиболее крупного семейства в Турции — *Teloschistaceae*, результаты которого будут положены в основу «Флоры».

Turkey is rich in natural habitats and acts as a meeting point of Mediterranean lichens, oceanic and continental lichens of steppes and deserts. Nowadays, suitable complex identification literature is missing from the Mediterranean and continental parts of Eurasia, thus the «Lichen flora of Turkey» would be a widely used identification source. We have made the first step, when starting the project on Turkish biodiversity of *Teloschistaceae* — possibly the most species-rich family in the country. Hopefully, the *Teloschistaceae* project will result into the first volume of the «Flora».

The idea of building up the entire lichen flora of Turkey seems to be naive, if we consider (a) a huge area of the country, (b) little tradition in lichenology and low number of active lichenologists and (c) high number of lichen taxa,

which are unclear; unknown or forgotten, or taxonomically not worked up yet.

The last reason is definitely a big obstacle, which cannot be overcome without considerable help of foreign specialists in particular groups and without providing modern taxonomical studies of all included lichen groups targeted to the Mediterranean basin and the Near East. Such a big deal may be successfully done within many years and it is strongly dependent on a long term taxonomical support.

In the other hand, the Turkish lichen flora would have a broad impact on lichenology in a broad territory, including certainly the whole Mediterranean basin and steppes / deserts from NE China in the east to Near East countries and southern Ukraine in the west.

Most of European lichen floras and complex identification literature used in Eurasia are focused on temperate to cold-temperate Europe (e.g. [6, 7, 8]), four existing volumes of the Nordic lichen flora, nine volumes of the Russian lichen flora). Only few complex works largely deal with lichens in the Mediterranean basin [1, 4, 5], but those are rather superficial, partly old-fashioned and in cases of problematic lichen taxa entirely insufficient. Even worse situation is in steppes and deserts of western-central Asia, where no complex studies exist (with the exception of Magnusson [2, 3]), which can be used for lichen identifications. In terms of such a poor knowledge background, the *Turkish lichen flora* would be a wonderful identification source containing taxa of Eurasian steppes/deserts, Mediterranean habitats, but also humid oceanic forest habitats.

The idea of *Turkish lichen flora* is very new, but we have made the first step already. We have received the financial support for studies in Turkish biodiversity of *Teloschistaceae*, which is possibly the most species-rich family in Turkey, containing certainly much more than hundred of taxa within its territory.

Our project is now in the stage, when majority of herbarium material collected by Turkish lichenologists is morphologically appraised and we recognized main gaps in knowledge. Following processes will be carried out in the next step:

(1) *Field work*. Three big excursions are planned in 2012-2014 into biodiversity hotspots in Turkey: Western and eastern Black Sea regions (humid coastal and mountain areas with adjacent continental steppes-deserts) and the Mediterranean Turkey including Taurus Mts range.

(2) *Morphological appraisals*. Character descriptions and measurements, micro- and macro-photographs will be done for all taxa.

(3) *Fingerprinting by ITS nrDNA sequences*. In spite

of some disadvantages, ITS marker is usually useful for routine identification of samples. Fingerprinting is planned for all taxa collected.

(4) *Phylogenetic / taxonomic studies*. Three-loci phylogeny (using ITS, MtLSU and β -tubulin) and detailed morphological appraisals are planned for difficult species complexes. These studies must be done in larger geographical context, i.e. cannot be restricted to the territory of Turkey.

(5) *Data basing* of all collected samples with their characters, ecology and locality data.

This three-year project will clarify identities of all/most of Turkish specimens of *Teloschistaceae*. We hope, we will obtain a next support to turn our knowledge into the first part of the *Turkish lichen flora*.

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