The stonefly (Plecoptera) fauna of the Carpathian Basin and the Balkans (Dávid Murányi, Tibor Kovács, Kirill Orci)

The stonefly fauna of the Carpathians, and especially of the Balkans are rich in comparison with the other European areas. The diversity of the Balkan fauna can be compared only with the one of the Iberian Peninsula. While the stoneflies of the Carpathian Basin are relatively well-known, the fauna of the Balkan countries are less known or very poorly known. In the last 15 years we have found many faunistic rarities and several species new for science. Our taxonomical research is based mainly on morphology, but during the past few years we have completed it with bioacustic, and, through our foreigner co-operators, with molecular methods. We have published our results in 15 taxonomic, more than 50 faunistic and some ecologicaljournals (. We described 17 new species from the area, and reported more than 100 species as new for the fauna of the given countries.

Nemoura asceta Murányi, 2007, a stonefly described from Albania, later found also in Greece and European part of Turkey.

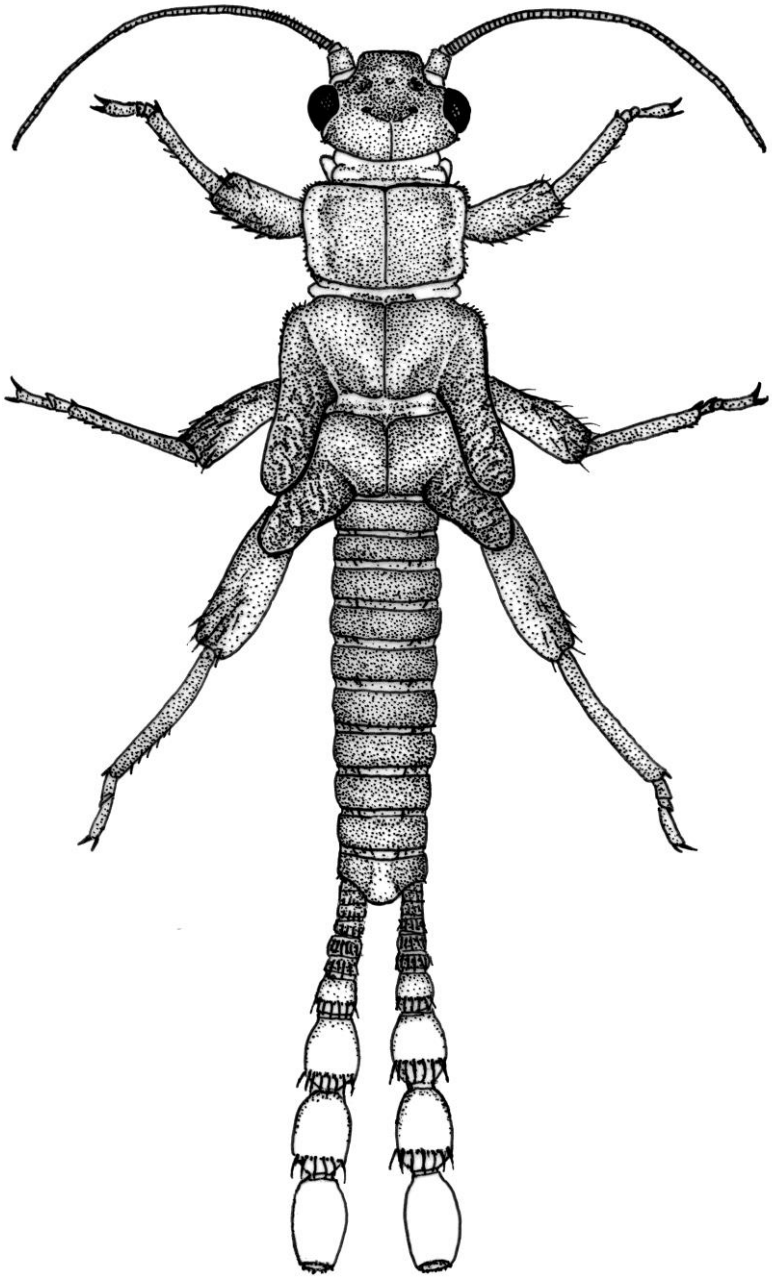
Bulgaroperla mirabilis Raušer, 1966, an emblematic stonefly of the southeastern Balkans.

High mountain brook on the Albanian side of the Korab Mts, a habitat for microendemic Balkan stoneflies.

The stonefly (Plecoptera) fauna of Asia (Dávid Murányi)

Although the research of the Asiatic stoneflies has a long and intensive history, huge areas of Asia are practically unknown. Materials collected in China, Southeastern Asia or the southern slopes of the Himalayas still can cover a large number of undescribed species. My taxonomical research, carried out together with local colleagues, is focused on the stoneflies of China and Korea, but we also published data on the fauna of India, Iran, Kazakhstan, Lebanon and Turkey. Our research is based on morphology, but during the past five years it was completed with molecular methods. Our results have been reported in 10 taxonomical publications so far, in which we described 12 new species from the area.

Scopura jiri Jin et Bae, 2005, an endemic stonefly of the Korean Jiri Mts, representing a family restricted to Korea and Japan. There are only 8 species known from this family, all are large, wingless insects living in small streamlets of high mountains.



Sphaeronemoura separata Li, Murányi et Yang, 2014, the peculiar larva of a species described from Henan. province, China.

Forest stream in the Korean Seorak Mts, habitat of Korean endemic stoneflies.

Harvestmen (Opiliones) fauna of Anatolia and the Balkans (Dávid Murányi)

Although the order of harvestmen comprises only a limited number of species in Europe, they are rather poorly investigated in the Balkans and Anatolia. Therefore, the exploration of these areas is still a challenge. Many species are known only from old descriptions, and thus, their identification is difficult. . Furthermore, there are still many new species to explore in the isolated, or hardly studied areas. My research is

dedicated to the re-collection and taxonomical redefinition of the lesser-known species, and to explore the fauna of the scarcely known regions Up to now one new species has beendescribed, and eight species have been redescribed in publications.

Megabunus pifkoi Murányi, 2008, a springtime harvestman described from Albania, that lives in forested rocky habitats.

Opilio putnik Karaman, 1999, a rock-dweller harvestman, endemic to the southern slopes of the Dinaric Mts.

Complex forest habitat in the Rhodope Mts of Bulgaria, home to Rumelian endemic harvestmen.

Faunistic research on some insect orders (Ephemeroptera, Odonata, Embioptera, Dermaptera, Isoptera) of the Balkans (Dávid Murányi, Tibor Kovács)

The Balkan Peninsula is one of the most diverse area of Europe that owns a remarkably rich fauna. During our collecting trips to the Balkans, we collect many invertebrate groups besides the ones that are the objects of our main research activities. Among these, we work on the faunistic examination of two aquatic groups (the mayflies (Ephemeroptera) and the odonatans, (i.e. dragonflies and damselflies

(Odonata)), and three orders belonging to the soil fauna (the webspinners (Embioptera), the earwigs (Dermaptera) and the termites (Isoptera)). We have published our research in 11 faunistic and ecofaunistic journals so far, reporting many rare, or new species for the fauna of the given countries. The bulk of the materialis from Albania, a smaller amount comes from Greece, Montenegro and other countries of the Balkans.

Forficula lurida Fischer, 1853, a Central and East Mediterranean earwig from Greece.

Iron jugoslavicus (Šámal, 1935), a conspicuous Balkan endemic mayfly that inhabits fast flowing streams.

Albanian shore of the Shkoder Lake, a dragonfly habitat of European importance.