Request for samples of *Pyrrhocoris apterus* and related *Pyrrhocoridae*

Dear colleagues,

We are interested in reconstructing phylogeography of the Linden bug, *Pyrrhocoris apterus* and it would be very helpful to obtain samples from various localities of its distribution. Our major interest is *P. apterus*, for which we would like to have rather dense coverage. For reference we would like to use a few samples of related bugs from the genus *Pyrrhocoris* and *Scantius*.

Red pins indicate localities from which we have either living bugs or DNA samples. The particularly interesting and so far completely missing or underrepresented regions are: Iran, Pakistan, Oman, Saudi Arabia, Emirates, Azerbaijan, Turkmenistan, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Turkey, Belarus, Russia, Moldavia, South West Mongolia, North West China.

In northern and western Europe we seek for samples from Denmark, Norway, Sweden, England.

We would be very happy for *P. apterus* from: Morocco, Algeria, Mediterranean Islands (Sicily, Corsica, Sardinia), Aegean islands, Central and Southern France.

Current collection (February 2015) of *P. apterus* (maps above) was only possible thanks to generous help of following colleagues: Adam Bajgar, Alejandro Cabezas-Cruz, Aleksandra Konjevic, Barbara Lis, Jerzy A. Lis, Carl-Cedric Coulianos, Rodolfe Costa, Dora Nagy, Eva Hola, Hanka Vaneckova, Iva Fukova, Jana Pavlova, Joanna Kotwica-Rolinska, Jula Lukes, Kai Schuette, Kajka Straznicka, Lucia Salis, Lukas Cizek, Lukas Drag, Manuel Baena, Marek Jindra, Marketa Ondrackova, Martin Kaltenpoth, Martin Vacha, Matilde Eizaguirre, Milan Stech, Milena Damulewicz, Olina Bazalova, Petr Kment, Petra Sekyrova, Plamen Kalushkov, Radka Zavodská, Ramon Albajes, Stanislav Rada, Teemu Rintala, Vlastimil Smykal, Xanti Pagola, Zeljko Popovic, Penelope Mavragani-Tsipidou, Elene Drosopoulou, Ligia Maria Marques Cota Vieira, Ozge Ozkaya, Ilayda Ozkaya, Lenka Chodakova and Petr Kment. (apologies to everybody missing)
Despite this amazing help from many colleagues and friends, following geographical regions are either underrepresented or even absent completely:

**Europe** – England, Sweden, Norway, Denmark, Belgium, France - western, central and southern, Mediterranean islands (Sicily, Corsica, Sardinia, islands in Aegean sea), Romania, Moldavia, Portugal, Spain (south and west), England, Belarus, East Ukraine, Russia,

**North Africa** – Morocco, Tunisia, Algeria, Egypt

**East** – Turkey, Syria, Lebanon, Jordan, Iraq, Iran, Afghanistan, Pakistan, Oman, Saudi Arabia, Emirates, Georgia, Azerbaijan, Turkmenistan, Tajikistan, Uzbekistan, Kyrgyzstan, Kazakhstan, Russia, South West Mongolia, North West China

**Sample collection:** The optimal way for storing and transporting samples seems to be 96% ethanol (non-denatured). 2ml screw cup tubes can accommodate 5 - 8 bugs from the same locality. We are ready to send prepared tubes filled with EtOH, just send an e-mail request, please. We are happy even for one individual bug, 10-15 specimens from one locality are optimal. It is important to have the report of the locality (such as GPS position or locality name from the map, elevation is also very useful). Please, if possible, it would be also great to mention, if the locality was urbanized area (town, park and similar area modified by human) or if the locality is more similar to original nature-like type (forest, steppe, mountains). In ideal case we would like to have samples collected approximately 200 km apart in lowlands, while in mountains or complex terrain even higher density is helpful (down to tens of kilometers).

Living bugs – an alternative is to collect live specimens. Adults survive with wet piece of cotton or cellulose in small paper box for more than one week, as long as it is not too hot. We are really happy to obtain living specimens for establishing colonies, where circadian and photoperiodic phenotypes can be characterized.

Species identification - *Pyrrhocoris apterus* can be quite easily identified thanks to its aposematic coloration. Both, larvae or adults can be collected and are welcome. We are also seeking for samples of closely related pyrrhocorids, such as *P. sibiricus*, *P. marginalis*, and genus *Scantius* (see the pictures below).

Thank you very much for any help!

David and Martin

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Above, aggregation of *P. apterus* larvae

*P. apterus* (left) differs from *Scantius* (right) in smaller frontal black spot (arrow)

Pictures below: Some species of the genus *Pyrrhocoris* (also wanted) are not so colorful, however their habitus is similar