Science News

New Insect On Balearic Islands

ScienceDaily (July 15, 2009) — After 10 years of biochemical and molecular analysis of the *Tyrrhenoleuctra plecoptera* that live in the Western Mediterranean, Spanish and Italian scientists have now demonstrated that one of the insect populations of this group is a distinct and, therefore, new species.

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The researchers, including a team from the University of Granada (UGR), used biochemical and molecular techniques for a decade to detail the taxonomical and phylogenetic relationships of the insects of the *Tyrrhenoleuctra plecoptera* genus that are spread across the Western Mediterranean (northern Africa, Iberian Peninsula, Balearic Isles, Corsica and Sardinia). The analyses included three species described using morphological characters as a basis.

"One of the results discovered and published in our studies is that the population of *Tyrrhenoleuctra* on the Balearic Islands is a clearly distinct taxon and demands acknowledgement of its status as an independent species", José Manuel Tierno de Figueroa, co-author of the study and a researcher in the Department of Animal Biology at the UGR explained SINC.

In order to demonstrate that the insect, called *Tyrrhenoleuctra antoninoi*, is really a species in its own right the team of scientists, comprising the Spanish researcher and Romolo Fochetti from the Tuscia University of Studies (Italy), wrote a scientific description in the journal Zootaxa, with biochemical (based on studies of enzymatic electrophoresis) and molecular characters (by means of mitochondrial DNA fragment sequencing).

Among the results of the study, Tierno de Figueroa and Fochetti highlighted the fact that insect was genetically distinct and "more closely related to populations on the southern Iberian peninsula and northern Africa than to those found on Corsica and Sardinia". The researchers also highlight that *Tyrrhenoleuctra* evolve molecularly at a "considerably slower rate than other insects distributed similarly in geographical terms.

Very Different Insects

Populations of insects belonging to the *Tyrrhenoleuctra*

This is Tyrrhenoleuctra antoninoi. (Credit: José Manuel Tierno de Figueroa / SINC)

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Journal reference:

1. Fochetti, Romolo; Tie... uel. **A new species of Leuctrida... f molecular and bioch... Tyrrhenoleuctra ant... coptera)**. *Zootaxa*, 2112: 41-46

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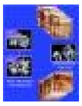

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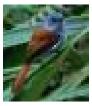

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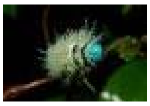

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