Significance of genus-level taxonomic composition of alpine leaf beetles (Coleoptera, Chrysomelidae) for zoogeographic studies

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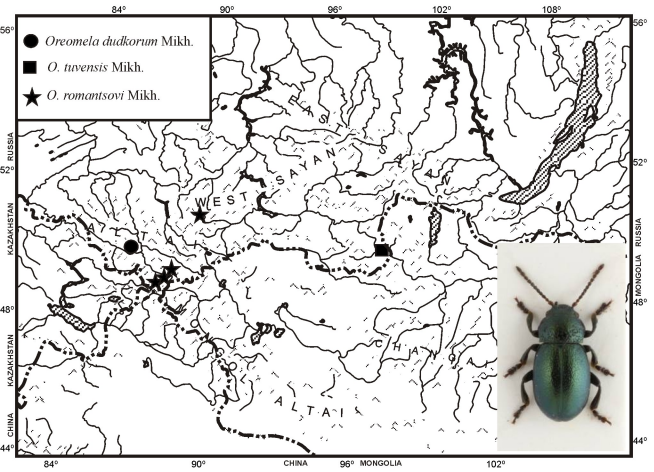

The northernmost findings of *Oreomela* species in the mountains of South Siberia. Three species described by me [2] in 2007 were new to science.

Composition of the subfamilies in leaf beetles can be used for faunistic comparisons of large zoogeographic units [1]. In the Arctic and alpine regions of Eurasia subfamily Chrysomelinae is dominating and composition of its genera (subgenera) is very peculiar.

Several genera are typically and exclusively alpine, others include alpine species in exact subgenera. Among the typical alpine genera the most speciose is *Oreomela* Jacobson with over 80 species distributed throughout the high mountains of Central Asia with the centre of diversity in Tien-Shan and its northern limit [2] in the mountains of South Siberia (Figure at the left). Genus *Xenomela* Weise (11 species) is restricted to Tien-Shan, *Parambrostoma* Chen (7 species) is distributed in the southern slope of the Himalayas [3] and *Suinzona* Chen (20 species) – mainly in the Hengduan Mountain region of China [4]. Genus *Oreothassa* Jcbs. with two species and monotypic *Apterocuris* Jcbs. are endemic to Altai Mountains. *Sclerophaedon* Weise has three isolated centers of diversity, in Europe, Nepal and Sichuan and Gansu provinces of China [5].

In the Urals *Chrysolina* demonstrates peculiar composition of subgenera: *Pleurosticha* + *Arctolina* + *Pezocrosita* or *Crositops*. Both *Pleurosticha* and *Arctolina* are typical arctic-alpine subgenera of Northern Asia. *Pezocrosita* from North Urals and *Crositops* from South Urals, both found only recently, show historical connections between these parts of the Urals with West Altai and West Sayan respectively (Figure at the right).

West Altai is peculiar with the endemic subgenus *Sibiriella* L. Medv. and the composition of *Chrysolina* subgenera there is *Sibiriella* + *Pleurosticha* + *Pezocrosita*.

West Sayan hosts the endemic subgenus *Paraheliostola* L. Medv. and the composition there is *Pleurosticha* + *Paraheliostola* + *Chrysocrosita*. *Chrysocrosita* is common for the Sayans with Mongolian Altai and the mountains of the Pacific coast of Eurasia.

Several examples of the composition of *Chrysolina* subgenera tracking the interconnections between the greater mountains of Asia

Therefore genus-level taxonomic composition of alpine leaf beetles reveals both distinguishing features of exact mountain systems and their interconnections and needs further studies.

References

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