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## **Leafy spurge biological control exploration for natural enemies from the leaf beetle genus *Aphthona* chevrolat (Coleoptera: Chrysomelidae: Alticinae)**

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## Leafy Spurge Biological Control Exploration for Natural Enemies from the Leaf Beetle Genus *Aphthona* Chevrolat (Coleoptera: Chrysomelidae: Alticinae)

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Invasive weeds, such as leafy spurge, cause great economic losses each year in the United States. Control of such weeds by plant feeding insects holds great promise as a way to reduce or eliminate these losses. Flea beetles, particularly *Aphthona* species, are one group of insects that feed on these plants and have been useful in biological control. Six Palearctic species of *Aphthona* have already been released in North America, but additional species are needed to control the weeds in a variety of habitats. For the purpose of collecting new, potential biological control agents, field work was conducted in Russia in June and July of 1998. Three major regions were explored: Krasnodar (northwestern Caucasus), Novosibirsk (Western Siberia), and Irkutsk (Eastern Siberia). During this work, a new species of *Aphthona* was discovered and its larvae were reared by the Biological Control Group, Zoological Institute, St. Petersburg, Russia. Also, ten previously described *Aphthona* species were collected. Six of them are locally abundant and have the ability to control leafy spurge in natural conditions. New distributional and host plant data for several *Aphthona* species was collected. To the best of our knowledge this was the first attempt to create a multidisciplinary team including (1) biological control specialist, (2) systematist, specialist in the group, and (3) field person. The team proved its effectiveness. Four weeks of explorations in Russia yielded six potential biological control agents from the leaf beetle genus *Aphthona*.

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