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Impact of some recent biological invasions on Trentino woods

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In the last decades, the records of biological invasions increased dramatically, because of generalized globalization, changes in social conditions and climate change effects. Italy, due to its geographical position, represents a strategic crossroads for the introduction in Europe of new species; furthermore, the richness of forest coverage may increase the variety of new invasions in woodlands. Thanks to the forest health monitoring program, the arrivals of several invasive forest damaging organisms were promptly detected in Trentino in the last years; thereafter it is possible to follow their spread and evaluate the impact. Some of the new forest pests as *Parectopa robiniella* Clemens, *Phyllonorycter robiniella* (Clemens) and *Obolodiplosis robiniae* (Haldeman) were able to colonize quickly the whole distribution area of the host but their presence didn't produce impressive damage. Also the western conifer seed bug (*Leptoglossus occidentalis* Heidemann), after a early massive infestation, is now rarely observed in urbanized contexts, suggesting its good integration in forest ecosystems with no evidence of real damages. *Dryocosmus kuriphilus* Yasumatsu appears to be well controlled by the specific parasitoid *Torymus sinenensis* Kamijo, justifying the heavy work and the investments on its release in our chestnut stands. *Melampsorium hiratsukanum* Ito and *Aproceros leucopoda* Takeuchi are colonizing minor species, such as the grey alder and the surviving elms, but their effect could be more notable on the long term, threatening the survival of fragile habitats, already invaded by several alien botanical species. The impressive colonization of *Hymenoscyphus fraxineus* (T. Kowalski) Baral, Queloz, Hosoya is still too recent to evaluate its effects, but first data show heavy damages especially on natural regeneration, with worrying of a possible worsening.