ALLELOPATHIC INTERACTION — A "NOVEL WEAPON" OF ALIEN INVASIVE PLANT SPECIES.

Summary

Allelopathy may be considered as a force that structures plant communities, and may be an important factor of alien species invasion. Invasive species are the organisms that have been introduced into the area where they did not originate or evolve. Additionally such introduction does cause economic and environmental harm or harm to human health. Many of the invaders are not as successful at the native habitat as in invaded recipient communities. Their invasion leads to establishing monocultures, resulting in the loss of biodiversity in ecosystems. The paper describes the "novel weapon" hypothesis explaining the invasive success. Allelopathy is suggested to be the mechanism of competition between the alien and native plant species. The allelochemicals released by the invaders are relatively ineffective against their natural neighbors due to adaptation, but they may be highly inhibitory to the newly encountered plants in the invaded communities. The success of alien species invasion is described as the allelopathic effect e.g. of European knapweeds (*Centaurea maculosa*, *C. diffusa* and *Acroptilon repens*) or *Alliaria petiolata* on native American grass species.