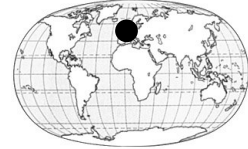


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INTERACTIONS BETWEEN INVASIVE AQUATIC PLANTS AND EXOTIC/ AUTOCHTHONOUS MACROINVERTEBRATES

The lack of enemies in the invaded areas is assumed to play a key role for a successful establishment of exotic species. This hypothesis led to the suggestion that introduced plants are in general less vulnerable than native to phytophagous animals. We assessed this hypothesis in laboratory experiments to test if the spread of an alien plant is promoted by a pressure releasing from (1) native herbivores or (2) from alien herbivores recently introduced in the ecosystem. The results allowed to compare the palatability of invasive aquatic macrophytes (*Egeria densa*, *Elodea nuttallii*, *Myriophyllum aquaticum*), naturalised plant (*Elodea canadensis*), and native plant (*Ceratophyllum demersum*, *Myriophyllum spicatum*) both by autochthonous and exotic macroinvertebrates (*Gammarus pulex* and *G. roeseli* respectively). The two species of *Gammarus* were collected from rivers differing in their nutrient status. The consumption rate of macroinvertebrates was recorded for the six species in one choice experiment and in two non-choice experiments. No differences were obtained between the feeding preferences of the exotic and the native *Gammarus* species for the different plant species tested. The exotic plant species *Egeria densa* and *Myriophyllum aquaticum* were less consumed than the native species (*C. demersum*, *M. spicatum*) and than *Elodea* species. In both experiments, the amount consumed by macroinvertebrates differed significantly between the two *Gammarus* species. The consumption rate by alien herbivores was higher than the consumption by the native macroinvertebrates. Finally, the plant palatability was related with the river nutrient status.

keywords: native species, alien species, aquatic macrophyte, palatability, *Gammarus pulex*, *Gammarus roeseli*