

# Distribution of selected neophytes along the national railway network of Luxembourg

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This poster presents the results of a first systematic inventory of the following eight invasive alien plant species conducted along the ± 275 km long network of the national railway company of Luxembourg in 2013: summer lilac (*Buddleja davidii*) [Fig. 1], Japanese knotweed (*Fallopia japonica*) [Fig. 2], Sakhalin knotweed (*Fallopia sachalinensis*) [Fig. 3] and their hybrid (*Fallopia × bohemica*), giant hogweed (*Heracleum mantegazzianum*) [Fig. 4], Himalayan balsam (*Impatiens glandulifera*) [Fig. 5], staghorn sumac (*Rhus typhina*) [Fig. 6] and black locust (*Robinia pseudoacacia*) [Fig. 7].

If one considers the results of the inventory independently of the species, it becomes apparent that almost the entire Luxembourg railway network is concerned by at least one of the neophytes that have been the subject of this study (Fig. 8).

Railway lines are known to be one of the most effective ways for the spreading of neophytes. Apart from the fact that the slopes of the railway network are often disturbed areas, the airstream caused by passing trains helps to spread the seeds of different neophyte species. Since the middle of the 19<sup>th</sup> century, the construction of railway lines and the rail traffic have contributed to the spread of neophytes in Europe.

The spreading of some species is related not only to the conditions on the railway tracks and its slopes but also to the management of the vegetation along the railway network. Whereas control measures are recommended against *Heracleum mantegazzianum* and *Rhus typhina* because of human health issues, the populations of *Fallopia*-species should be monitored because of their potential to damage railway infrastructure.

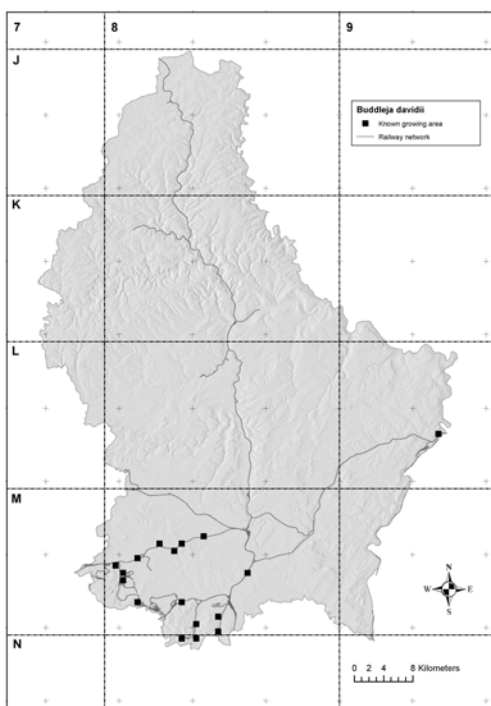


Fig. 1. *Buddleja davidii*.

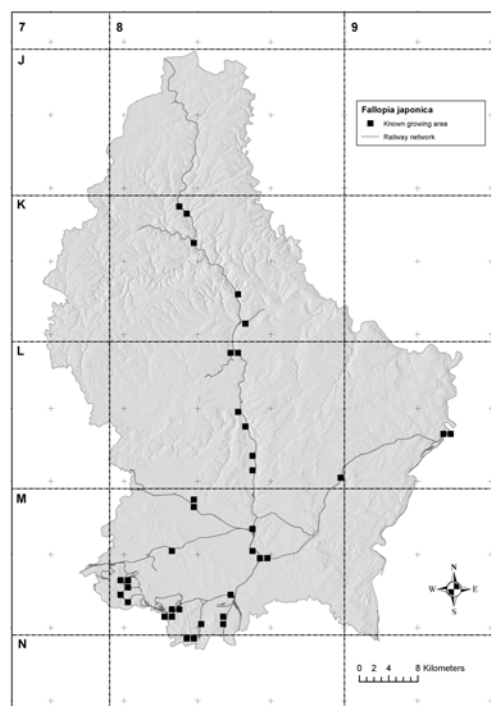


Fig. 2. *Fallopia japonica*.



Fig. 3. *Fallopia sachalinensis*.

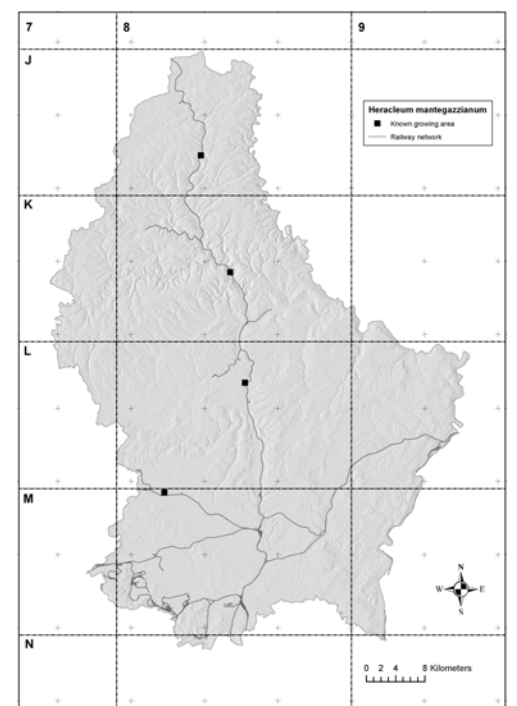


Fig. 4. *Heracleum mantegazzianum*.

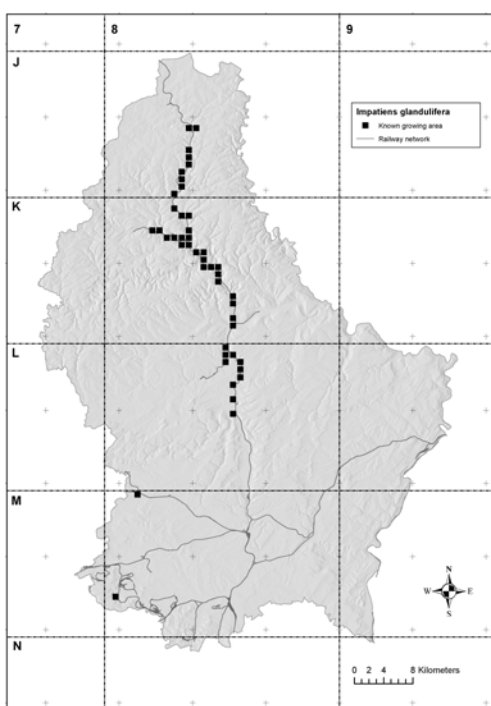


Fig. 5. *Impatiens glandulifera*.

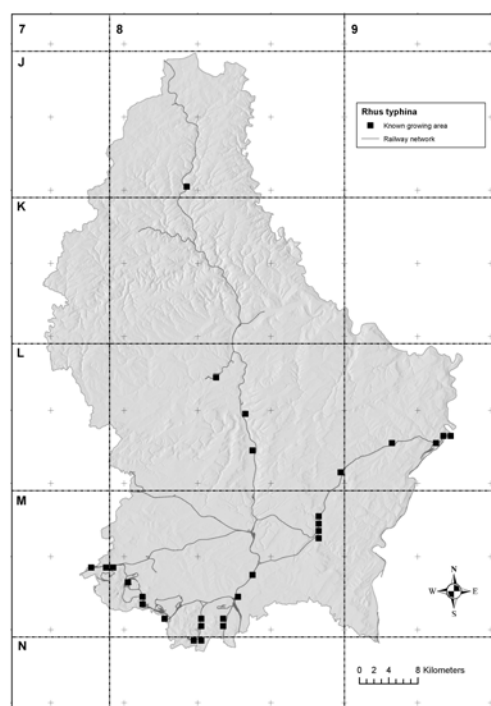


Fig. 6. *Rhus typhina*.

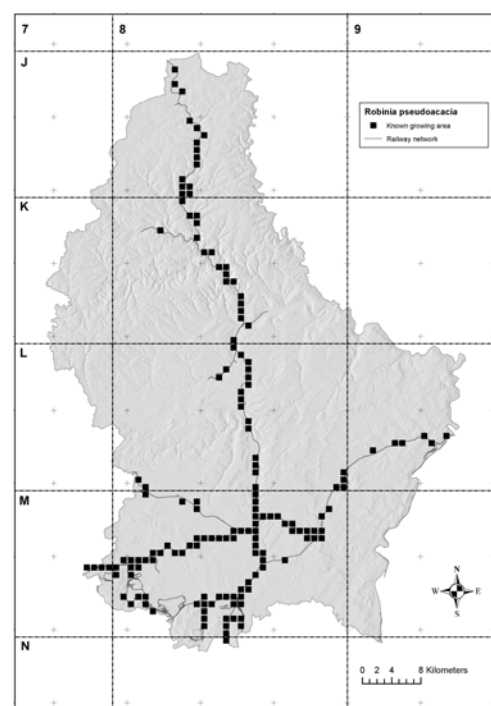


Fig. 7. *Robinia pseudoacacia*.

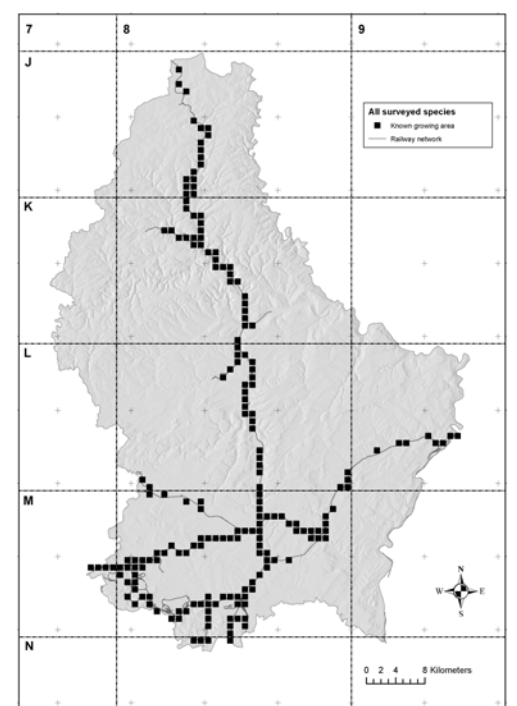


Fig. 8. All surveyed species merged.



*Buddleja davidii*

*Fallopia japonica*

*Fallopia sachalinensis*

*Heracleum mantegazzianum*

*Impatiens glandulifera*

*Rhus typhina*

*Robinia pseudoacacia*