

Online Resource 1

A comprehensive and cost-effective approach for investigating passive dispersal in minute invertebrates with case studies of phytophagous eriophyid mites

Lechosław Kuczyński, Anna Radwańska, Kamila Karpicka-Ignatowska*, Alicja Laska, Mariusz Lewandowski, Brian G. Rector, Agnieszka Majer, Jarosław Raubic, Anna Skoracka

*corresponding author

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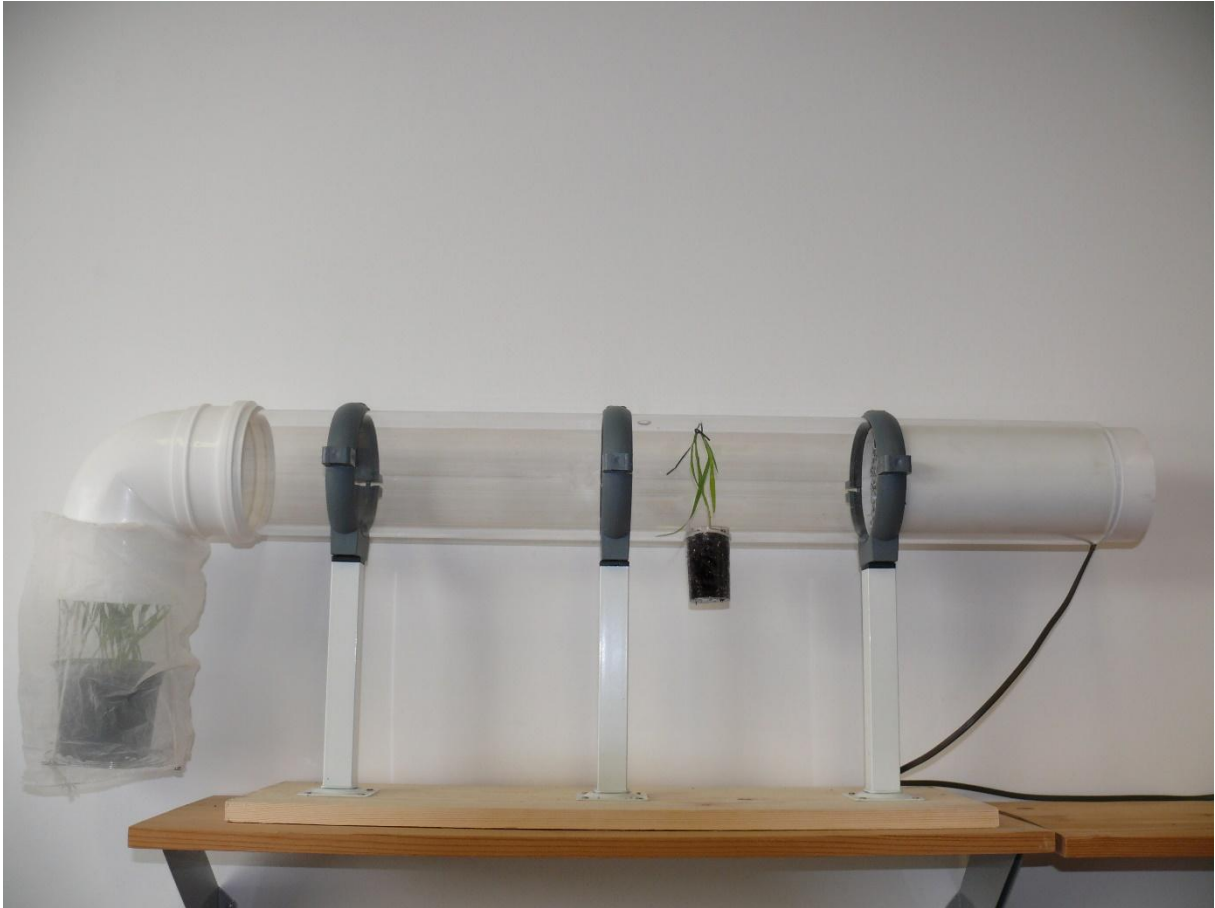


Fig. S1 Photo of the 'wind-transience' tunnel used to test the transience stage with wind currents and to test subsequent settlement on the target patch.



Fig. S2 Photo of the 'vector-transience' tunnel used to test transience phase with vector and subsequent settlement.



Fig. S3 Photo of the ‘departure’ tunnel used for direct observation and recording of departure events and dispersal-related behaviors in the presence of wind.

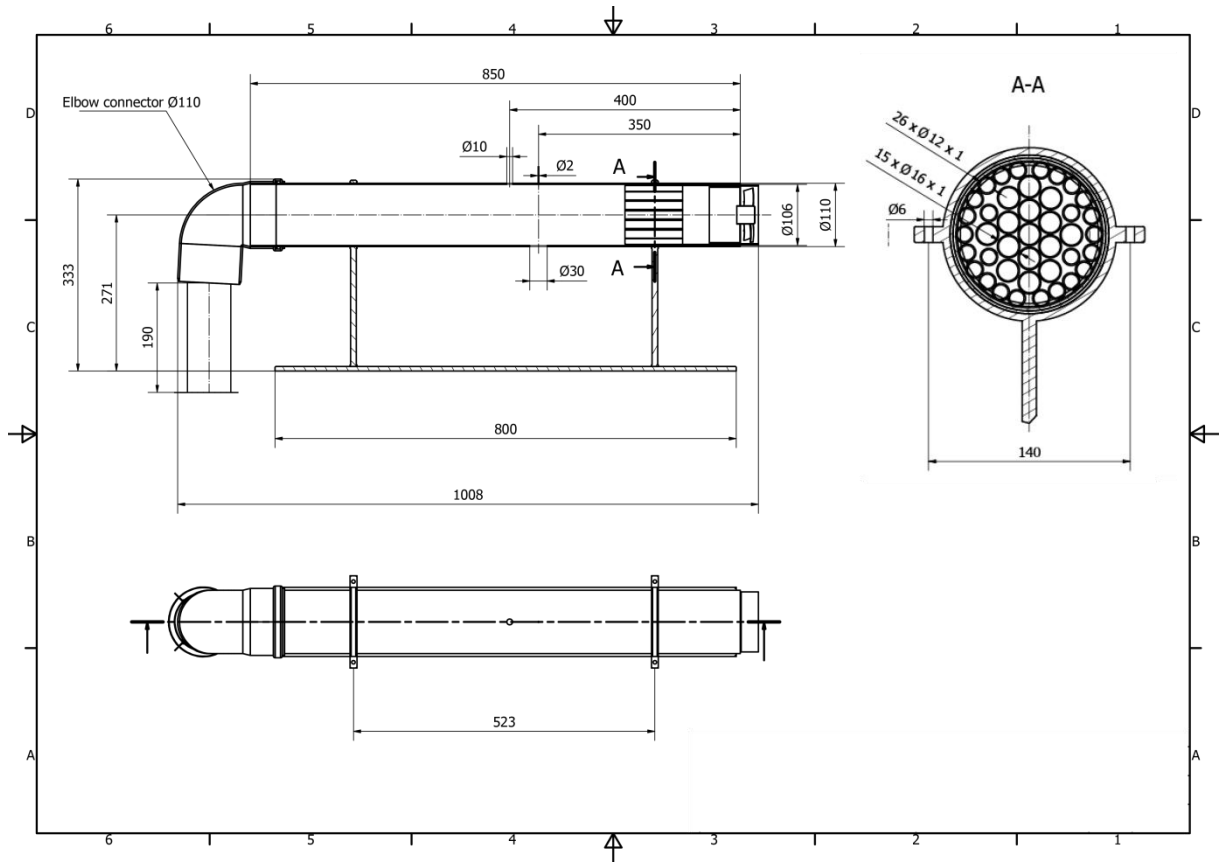


Fig. S4 Technical drawing of the 'wind-transience' tunnel. All measurements are given in millimeters.

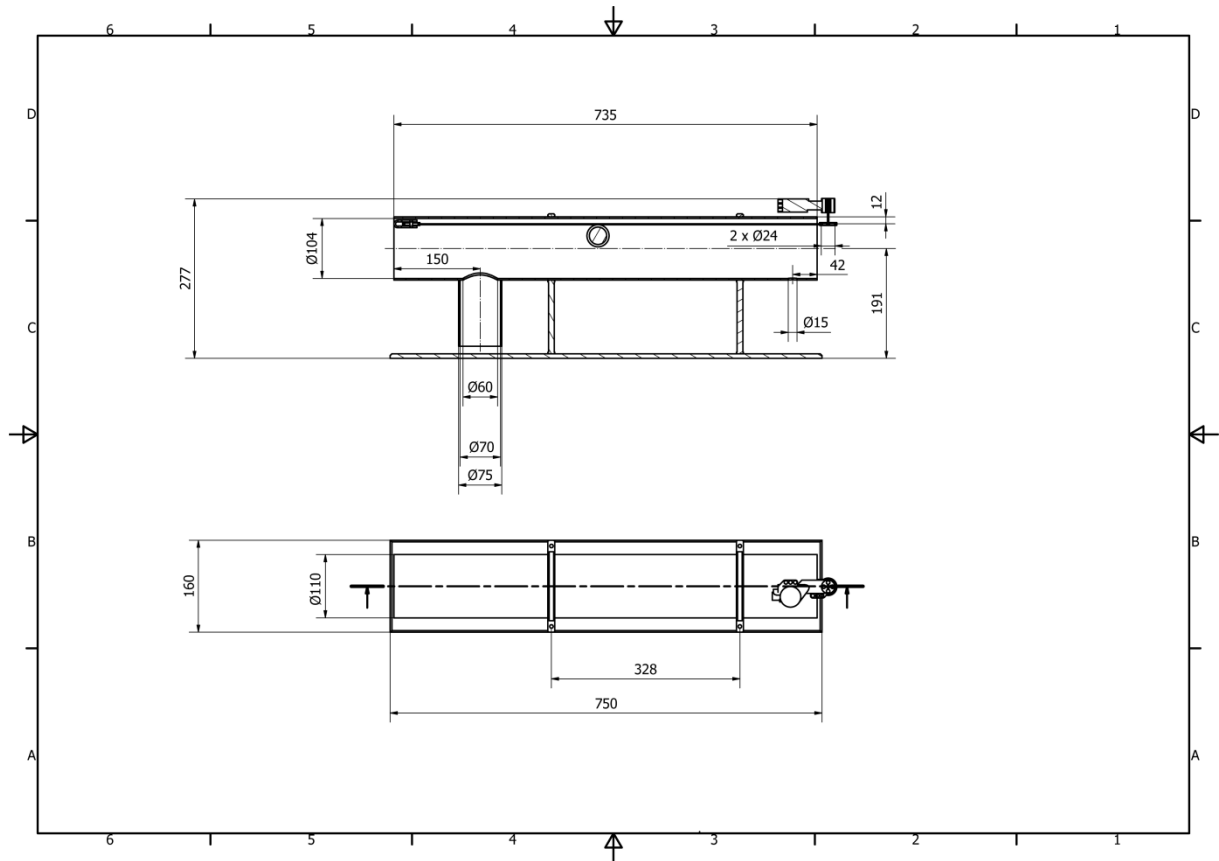


Fig. S5 Technical drawing of the 'vector-transience' tunnel. All measurements are given in millimeters.

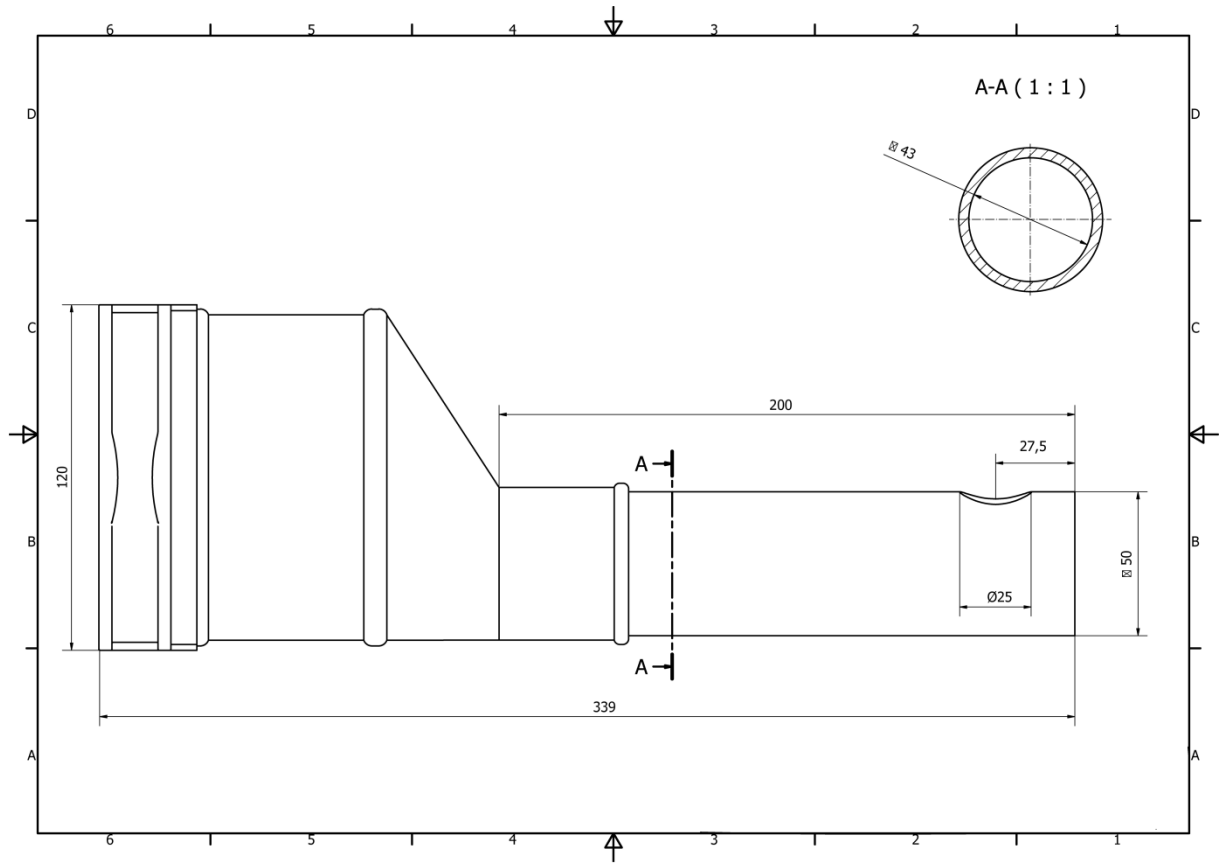


Fig. S6 Technical drawing of the 'departure' tunnel. All measurements are given in millimeters.

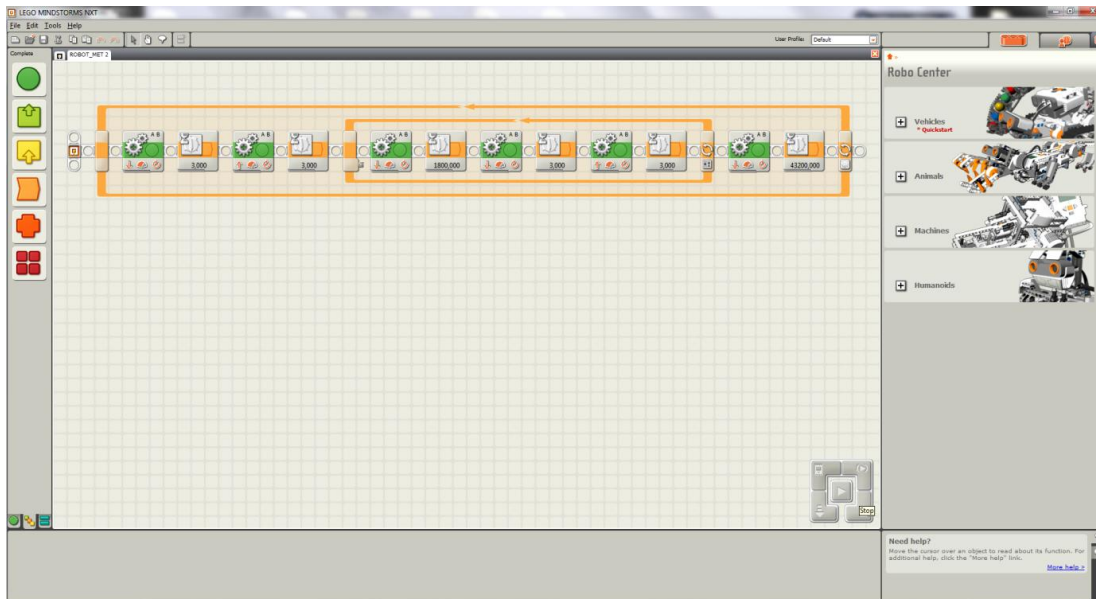


Fig. S7 The scheme of Lego Mindstorms NXT 2.0 – engine program for a robotic mammalian vector simulation.

Action/flow blocks:

1. Movement from the middle of the tube to the source plant
2. 3-second stop over the source plant
3. Movement from the source plant to the target plant
4. 3-second stop over the target plant
5. Movement from the target plant to the middle of the tube
6. 30-minute stop in the middle of the tube
7. Movement from the middle of the tube to the source plant
8. 3-second stop over the source plant
9. Movement from the source plant to the target plant
10. 3-second stop over the target plant
11. Movement from the target plant to the middle of the tube
12. 12-hour stop in the middle of the tube

Small loop – the cycle repeated 12 times (points: 5 – 10)

Big loop – the cycle repeated 2 times (points: 1 – 12)

In the beginning of the second 12-hour stop, the entire robot was shut down and the target plants were incubated.