Effective attraction radius of pheromone traps for *Monochamus galloprovincialis*

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Pheromone trapping has been considered as a means to monitor populations of *Monochamus galloprovincialis*, the insect vector of the pine wood nematode (PWN) in southern Europe, since the identification and the synthesis of its aggregation pheromone, which shows excellent biological activity in the field. With the development of very effective interception traps, pheromone trapping is also envisaged for PWN management through mass-trapping. However little is known about the practical deployment of pheromone traps in the field, particularly about optimal density of traps in trapping networks. The concept of Effective Attraction Radius (EAR, Byers et al. 1989), which represents the radius of a passive "sticky" sphere that would intercept the same number of flying insects as the attractant, is of particular interest for optimizing the density of trapping network. In theory, capture efficiency is expected to reach an optimum for distance D_{Opt} between traps equal to twice EAR. We developed a "quick and cheap" experimental method to estimate EAR in the field, using pairs of pheromone traps at increasing distance from each other. Plotting the mean capture of *M. galloprovincialis* per trap against the distance between two traps we obtained an asymptotic curve that levelled out at D_{Opt} making it possible to estimate EAR.