

Host Specificity Testing of *Archanara geminipuncta* and *A. neurica* (Lepidoptera: Noctuidae), Candidates for Biological Control of *Phragmites australis* (Poaceae)

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Abstract

Two European stem-boring moth species (*Archanara geminipuncta* Haworth and *A. neurica* Hübner.) are evaluated as possible biological control agents for introduced *Phragmites australis* (Cav.) Trin.ex Steud. in North America. A particular challenge in the *Phragmites* biocontrol program is the existence of a native subspecies *P. australis* (Cav.) Trin.ex Steud. subsp. *americanus*. We have developed a sequence of quarantine-testing procedures, first transferring neonate larvae onto young shoots for five days. If plants are successfully attacked, larvae are given a range of stem sizes and tested for ability to complete larval development. This approach quickly eliminates most plant species as unsuitable hosts with the exception of several native haplotypes and a few test plant species which are exposed for larval development. In addition, open-field tests are underway at CABI in Switzerland concentrating on potential oviposition preference of the moths between introduced *P. australis* and the native subspecies.