

FLIGHT ACTIVITY AND DEVELOPMENT OF THE SPRUCE BARK BEETLE *IPS* *TYPOGRAPHUS*

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The outbreak of *Ips typographus* in southern Sweden after the storm in January 2005 killed 2-3 million m³ of spruce forest during 2005-2009. Since 2005 we are studying flight activity and development of *Ips typographus* at two field stations in southern Sweden, Asa and Tönnersjöheden. The biology of *Ips typographus* is relatively well studied except from the over wintering and different behaviours of the sister brood. Thus it is needed to find out more about factors effecting different developmental stages of *Ips typographus*. The predictions made are based on the Austrian PHENIPS-model (Baier et al 2007); data collected during 2005-2009 will be used for adapting the model for Swedish conditions. During flight season from April until September pheromone baited window traps next to fresh logs are emptied weekly. They remained at the same sites in all years. Trap catches of *Ips typographus* has been increasing since 2005, peaking 2007 with a small decrease 2008 and dropping radically 2009 (prelim. data). To study development, bark beetle infested logs are put into emergence bags in May, June and July and emerging beetles are collected weekly. In all years, first generation started to emerge in early July, and callow beetles showed up in traps together with old sister-brood flyers. Most of the *Ips typographus* flying after 1 July is 2nd generation. Hence 2nd generation flight occurred in all years, but a completed second brood development only occurred in the exceptionally warm and dry summer of 2006.