**Summary**

*Šmits, A.,* (**2016**)Monitoring of the great web-spinning pine-sawfly and recommendations to mitigate the effects of its impact to pine stands. *Progress report. LVMI Silava, Salaspils*. 18 pp.

In the summer of 2013 the outbreak of great web spinning sawfly (*Acantholyda posticalis* (Matsumura, 1912)) was observed in forest stands of the Daugauvpils municipality. Outbreak covered approximately 100 ha. In 2016 significant defoliation is observed in approximately 200 ha forest stands. Outbreak has expanded also to forest stands managed by LVM.

This progress report contains description of activities curried in year 2016 until December 1 according to timetable of the contract 5-5.5\_0029\_101\_16\_60

The aim of the study is to assess affected stands by web spinning sawfly, evaluate damage, carry out research on pest biology and ecology, and prepare recommendations to mitigate negative effect of the outbreak.

Three groups of sample plots with three plots of 500 m2 were established in *A.posticalis* defoliated stands to assess effect of defoliation on pine growth. The forth sample plot group- control, will be established before wood sampling in order to choose most appropriate stand with no *A.posticalis* defoliation.

In order to develop and improve monitoring method for overwintering *A.posticalis* larvae in July 2016 64 sites were sampled with three samples in each site. Nine sites were sampled in Latvijas valsts meži Nicgales forest district 310 block district territory (blocks No 175-235) where maximum observed density of larvae in the soil was 167 larvae per 1m2. In primary outbreak region density of larvae in the soil surpased 1000 larvae/m2.

In autumn 2016 *A.posticalis* overwintering larvae were sampled in 80 sample plot. 22 sample plots were established in Latvijas valsts meži Nicgales forest district 310 block district territory (blocks No 175-235). Mass outbreak with larvae density surpassing 100 larvae per m2 covers 454 ha. Extremely high adult flight activity is expected in spring 2017 (proportion of pronymphs was 60%-95%). Heavy defoliation and tree mortality is expected in summer 2017.

41% of birdboxes placed in LVM forests were inhabited by small hole-nesting birds.

Twenty-one ground traps for great web-spinning pine-sawfly diapause survey was established in outbreak region in accordance with methodology.