

## Diurnal pollination pattern of lingonberry

**Inés Lasala González<sup>1</sup>, Reima Leinonen<sup>1, 2</sup>,  
Rainer Peltola<sup>1</sup>, Henri Vanhanen<sup>3</sup>**

<sup>1</sup>UEF – University of Eastern Finland,  
Department of Biology, Joensuu, Finland

<sup>2</sup>Kainuu Centre for Economic Development,  
Transport and the Environment, Kajaani, Finland

<sup>3</sup>Natural resources institute Finland (Luke), Finland,  
email: henri.vanhanen@luke.fi

Lingonberry (*Vaccinium vitis-idaea*) is one of the most high-yielding wild berry-crop in Finland. It's harvested crop varies annually from 3 to 11 million kilograms. Although pollination is one of the key factors determining the lingonberry crop, there is lack of knowledge about the main pollinators of lingonberry.

Monitoring of actual diurnal pollination pattern of wild berry plants has been very labor intensive and only few Finnish and Scandinavian papers have focused on the topic. Our approach was to monitor lingonberry pollination with high definition motion sensor trail/surveillance camera and record every pollinator that visited the flowers of selected frame of lingonberry vegetation. Study site was located at Sotkamo Research Station (64°08'N 028°23'E) where lingonberry is cultivated.

Visitors were classified into four categories — **1** bumblebees; **2** solitary and honey bees; **3** flies, and **4** others. We were able to count 860 insect visits to flowers between 13 June and 8 July 2014. Majority of the visitors were solitary and honey bees. Diurnal pattern of visitors is discussed.

**Keywords:** bees, flower visits, pollinator diversity, *Vaccinium vitis-idaea*