

To: Kitty Jones
From: Stefan Kovič
Date: January 12, 2009
Re: Update on Emerald Ash Borer Midgut Experiments

As you know, I have been working to analyze the midgut microbial community of *Agrilus planipennis* (commonly known as the emerald ash borer) with the hope of developing more effective biocontrol methods. My research follows studies of midgut communities in other invasive beetles and, to an extent, studies of midgut communities and management methods in invasive caterpillars (such as gypsy moth larvae) as well. I have obtained good data on species distribution so far using culture-based methods, and I expect to have more complete data by the end of next week.

Despite my initial difficulty extracting the guts from the fourth instar larvae, I was able to obtain enough gut sections to work with. So far, I have been able to create a preliminary phylotype distribution based upon the midgut of fourth instar larvae and adult beetles; I have attached that list to this memo.

At present, I am about to start extracting DNA from the total gut extract for use in 16S rRNA sequencing. I hope to obtain a more complete picture of the microbial diversity of the midgut in this manner, in case any members of the community are not culturable. I will meet with Dr. Robin Fowler of the Department of Entomology to discuss the preliminary results of this experiment.

Overall, my experiments continue to go smoothly, and I will be ready to present those results at the lab meeting next month.

cc: Robin Fowler
Attachment: Preliminary phylotype distribution in adult male and female *A. planipennis*

Early in the first paragraph, Stefan reminds Kitty of the topic and purpose of his research. The purpose of the project is clear: to determine what kind of bacteria live in the midgut of the emerald ash borer, which he hopes will be useful in controlling this pest.

The last sentence of the first paragraph emphasizes the key points of the memo by giving Kitty the information she needs most — that the project is going well, and that Stefan expects to have even more complete results in a week.

Notice the two lines at the bottom of the memo. The "cc:" line tells Kitty that Stefan has sent a copy of the memo to Robin Fowler, whom he mentions in the memo. Similarly, the "Attachment:" line tells Kitty that Stefan has included some of his preliminary data with his memo.