

OR365

Queen sex pheromones of two sympatric species of Polyergus

Les Greenberg, Christine Johnson, James Trager, Steven McElfresh, Jocelyn Millar, Josh Rodstein

Our goal was to compare the sex pheromones of an eastern and a western North American species of *Polyergus* (*P. lucidus* group and *P. breviceps* group, respectively). We have previously described the queen sex pheromone in a species in the *P. breviceps* group, *P. topoffi*. Males fly to lures containing the pheromone. We now describe the queen sex pheromone of a species in the *P. lucidus* group. Both species share the major component of their queen sex pheromones, methyl 6-methylsalicylate. The minor component in the *P. breviceps* group is (R)-3-ethyl-4-methylpentanol, while in the *P. lucidus* group the minor component is (R)-3-ethyl-4-methylpentanoate. When lures of these blends are placed in a field in Missouri that contains a species in the *P. breviceps* group, *P. mexicanus* and a species in the *P. lucidus* group, *P. lucidus*, males fly almost exclusively to their own pheromone blend.