

Firefly karyotype and genome size evolution

Background and motivation for two independent projects

Species have a specific number of chromosomes/genome size and it is often seen, that these traits are very labile across phylogenies. For some firefly species the karyotype and genome size is known, but for most species there is no information about their chromosome number or genome size.

Projects objectives:

Project 1: Karyotype characterization of European firefly species using staining approaches.

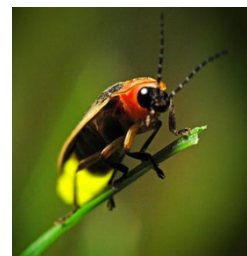
Project 2: Bioinformatic estimation of genome size from various firefly species.



Lamprohiza splendidula



Lampyris noctiluca



Luciola italica

Student requirements

- Basic lab skills.
- High motivation.
- Willingness to travel in Europe (in summer).
- Basic bash knowledge.

Learning outcome

- Chromosome staining and karyotyping in fireflies.
- Imaging techniques for chromosome counting.
- Bioinformatic assessment of genome size.
- Phylogenetic analysis of chromosome/genome size evolution in fireflies.

Contact information:

Ana Catalán, catalan@bio.lmu.de

Office number: C01.005