



Natural History Museum

Taxonomic revisions of poorly known groups of insects— your contribution to describing the planet's unknown biodiversity and recovering the Tree of Life

Brief description of the project. Did you know that life on Earth, as we know it, is represented mostly by beetles (every 4th described species is a beetle)? Despite the fact that 1 mln species of insects have been described, up to 10 mln species still remain to be described. Phylogeny of many taxa has never been inferred. Even within Norway, where 15,000 species of insects have been recorded, 8,000 species are still expected to be found.

Do you wish to contribute? You can focus on a charismatic group of your choice, revise specimens in our museum collection, study specimens in other museums, and collect them yourself in the field. You can describe the new species and illustrate them, make an identification key to species in the group, use morphological characters and obtained DNA sequences to produce phylogenetic trees.



This is a new species of beetle of the genus *Agathidium* discovered by a student, Joachim Lie Brasøy

What you can learn and practice includes the following:

- Work with natural history collections
- Collecting insects in the field
- Insect morphology
- Use of molecular markers; DNA extraction, PCR, sequencing
- Phylogenetic analyses
- Writing descriptions of new species
- Scientific illustration and photography
- Composing identification keys

The fields where you can apply your newly acquired experience:

- Biosystematics
- Entomology
- Evolutionary biology
- Conservation biology

The project can be fine-tuned according to your interests. The best group to work on is, of course, beetles, but other insect groups are also a possibility. Geographic area: flexible, ranging from Europe to some more exotic locations we have material from and/or ongoing research projects, e.g., East Africa or the Appalachian Mountains. The results of your work will be publishable in top scientific journals.

Interested? Contact Vladimir Gusarov for additional info: vladimir.gusarov@nhm.uio.no, 22851703
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