

Report on the meeting “Towards a Belgian network of DNA barcoding Laboratories”

Report on the meeting “Towards a Belgian network of DNA barcoding Laboratories”, 28 June 2010, organized by the Joint Experimental Molecular Unit (JEMU) of the Royal Belgian Institute of Natural Sciences, Brussel, Belgium and the Royal Museum for Central Africa, Tervuren, Belgium.

Organizers:

Thierry Backeljau (Royal Belgian Institute of Natural Sciences) and Marc De Meyer (Royal Museum for Central Africa).

Venue:

Royal Belgian Institute of Natural Sciences, 29 Rue Vautier, B. 1000, Brussel.

Statistics:

26 participants from various organizations and institutes in Belgium. 1 invited speaker (Lorenzo Lombard) and 18 contributed talks. Participants were selected based on their involvement in DNA barcoding or where research fields could be relevant.

Aim of meeting:

To discuss the feasibility of creating a DNA barcoding network in Belgium by bringing together representatives from various leading Belgian research institutions and organizations. This included a discussion on the tasks, responsibilities and practicalities of creating such a network and to coordinate DNA barcoding activities in Belgium as well as facilitate collaborations in DNA barcoding. JEMU was requested by the Belgian Science Policy to investigate the possibilities of creating such a network. JEMU was requested by the Belgian Science Policy to look into the possibilities of creating such a network.

Program:

The program consisted of presentations on current activities in DNA barcoding, fields of involvement and where DNA barcoding could be relevant.

Summary of presentations:

The meeting was opened with a presentation by Lorenzo Lombard (ECBOL coordinator) on the current status of DNA barcoding in Europe and a short report on other international barcoding activities. Zoltán Nagy (JEMU) presented an introduction and overview of JEMU projects, activities and achievements. Peter Galbusera (Royal Zoological Society of Antwerp) introduced the Centre for Research and Conservation

Report on the meeting “Towards a Belgian network of DNA barcoding Laboratories”

and their various research groups with their intentions for using barcoding in taxonomic, diagnostic and biodiversity research. Sofie Vandewoestijne (Université Catholique de Louvain) gave an overview of various research projects at the Earth and Life Institute where barcode marker are used for phylogenetic, phylogeographic and population studies but not doing barcoding intentionally. Veerle Versteirt (Institute for Tropical Medicine, Antwerp) gave an overview of their department’s research on mosquitoes and Tsetse flies and the parasites these vectors carry. They are actively developing and using DNA barcodes as an identification tool (collaboration with JEMU). Sofie Derycke (University of Gent) presented their work on barcoding free-living marine nematodes and deep-sea sponges. Karine Van Doninck (University of Namur) presented work done on invasive freshwater bivalves (*Corbicula*) and bdelloid rotifers but not doing barcoding because of problems with applying mtDNA markers in these androgenetic and/or apomictic organisms. Sophie Gombeer (University of Antwerp) reported on developing a microarray chip spotted with DNA from barcoding regions to be used as an identification tool of freshwater invertebrates (Trichoptera).

Annick Wilmotte (University of Liège) gave an introduction to cyanobacteria and highlighted problems with their taxonomy but not actively doing barcoding as yet. Ludwig Triest (Vrije Universiteit Brussel) reported on using barcoding to identify seagrass species (Alismatidae) as there was a problem with species identification for population studies. Yves Roisin (Université Libre de Bruxelles) highlighted the difficulty of identifying termite species, especially those that are soldier-less (Anoplotermes), and intentions of using barcodes to identify them (collaboration with JEMU). Styn Desmyter (Nationaal Instituut voor Criminalistiek en Criminologie) gave an overview of their activities and development of DNA barcodes of forensic important fly species (collaboration with JEMU). Christiane Fassotte (Centre Wallon de Recherches Agronomiques) gave an overview of their research on pests of agricultural and horticultural crops and their intentions of using barcodes in the future as they already have the facilities available (collaboration with JEMU). Wim Vyverman (University of Gent) gave an overview of their work on diatoms, highlighting their large diversity and would like to contribute to the barcoding of this group of organisms but not as a main goal. Denis Michez (University of Mons) presented work on pollinators but not doing barcoding. Barcoding will, however, will be part of their future work as a by-product. Steven Dessen (National Botanical Garden of Belgium) highlighted the main research topics they participate in, but does not include barcoding at present. Interested in barcoding of lichens, fungi and higher plants from especially Africa but activities will be depended on funding. Joachim Mergeay (Research Institute for Nature and Forests) focused on conservation biology and biodiversity studies of their institute and emphasized that they are only end-users of barcodes and will not develop barcodes. Tine Huyse (Catholic University of Leuven) highlighted their barcoding collaborations

Report on the meeting “Towards a Belgian network of DNA barcoding Laboratories”

with JEMU, the Museum of Natural History, Paris, and University of Guelph on barcoding of fish and fish parasites. Wim Willems (University of Hasselt) gave an overview of their work on free-living flatworms using barcoding (collaboration with JEMU).

Discussion:

The meeting was concluded with a discussion session on the establishment of a Belgian barcoding network connected to ECBOL. All participants agreed on establishing such a network that will have the following coordinating functions:

- Website
- Organization of regular meetings
- Develop and present short courses
- Give information on meetings and funding opportunities
- Helpdesk for barcoding issues
- Platform for information exchange
- Act as focal point for international partners

A proposal for funding from the Fonds voor Wetenschappelijk Onderzoek_Vlaanderen (FWO_Vlaanderen; Research Foundation Flanders) will be drafted to acquire funds for these functions as well as having funds available for invited guests and allow member researchers to attend barcoding workshops. As part of the proposal, collaborations are required from at least three Flemish institutes, two institutes from the French speaking community in Belgium and one or more international body such as CBOL and/or ECBOL. The closing date for the submission of the proposal is 1 October 2010. The draft of the proposal will be compiled by the JEMU team, which will also start with the practical organization of the Belgian barcoding network.