



TERM OF REFERENCE

MINI WORKSHOP **“ DNA BARCODING “**

Faculty of Forestry IPB, Bogor, 29 NOV 2013

I. BACKGROUND

DNA barcoding is a short sequence (<800 bp) DNA taken from standardized portion of the genome used for identifying species. Species identification using molecular data is a new concept which is developed in order to answer the challenge to provide a fast, accurate and accessible species identification system. The basic work of DNA barcoding is to store the DNA sequences of identified species in one database system (Barcode of Life Database System), which is web-based and freely available for any researchers who are interested in species identification.

The capacity of DNA barcoding to identify species is an important advantage in the effort to explore the Indonesian mega-diversity and documenting its genetic information. DNA barcoding also holds great promise to enable the forest product traceability, thus the authorities can avoid illegally traded animals or plants and their derivatives. With respect to timber, DNA barcoding has been noted capable to identify morphologically similar species, in order to prevent the illegal trade of species protected under the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES).

The first research project of DNA barcoding in Indonesia was initiated in 2008. Several universities in Indonesia have started to promote DNA barcoding concept through workshop, seminars and practical courses. Unfortunately, the focus of DNA barcoding in Indonesia is still limited on fauna.

II. OBJECTIVE

- Distribute basic knowledge and updated information about DNA Barcoding
- Provide a forum for discussion on the implementation of DNA Barcoding
- Stimulate the interest of university students in DNA Barcoding

III. TARGET AUDIENCE

Number of participant is limited to 20 persons only consisting of:

- Under-graduate students (restricted to research topics only) and graduate students with plant science background
- Researcher/Teaching staff



IV. DATE & VENUE

Date : 29 November 2013
Venue : RS Sylva, Faculty of Forestry, IPB, Kampus IPB Darmaga, Bogor

V. SPEAKERS

1. Dr. Essy Harnelly (Syiah Kuala University)
2. Fitri Yola Amandita, MSc (Goettingen University)
3. To be defined (LIPI)

VI. SCHEDULE

Course Organizer: Dr. Ulfah J. Siregar (email: siregaruj@gmail.com)

Course Assistant: Ms Laswi Irmayanti (email: laswii@yahoo.com)

Time	Activity
08.30 – 09.00	Opening & Workshop organization
09.00 – 09.45	Session 1 Speaker: Dr. Essy Harnelly <i>Topic: Introduction: concept and application of DNA Barcoding.</i>
09.45 – 10.30	Session 2 Speaker: Fitri Yola Amandita, MSc. <i>Topic: Field collection management</i>
10.30 – 11.15	Session 3 Speaker: LIPI (To be inquired). <i>Topic: The molecular phylogenetic analyses</i>
12.00 -13.30	Break
13.30- 14.30	Session 4 Speaker: Fitri Yola Amandita, MSc <i>Topic: Choosing the primer, and laboratory procedure for DNA Barcoding material (without hands on, only theory)</i>
14.30 – 15.30	Session 5 Speaker: Dr. Essy Harnelly <i>Topic: Data Analysis#1- Introduction to BOLD and Data Management</i>
15.30-16.00	Break
16.00 – 17.00	Session 6 Speaker: Dr. Essy Harnelly <i>Topic: Data Analysis#2-DNA Barcoding data analyses (The case study of Shorea species)</i>
17.00- 17.15	Closing and certificate handover