

MEMORANDUM OF AGREEMENT (MOA)  
AND MATERIAL TRANSFER AGREEMENT (MTA)

Between

THE FACULTY OF MATHEMATICS AND NATURAL SCIENCES OF UNIVERSITAS BRAWIJAYA (MIPA-UB)

And

THE UNIVERSITY OF TEXAS AT ARLINGTON, through its THE AMPHIBIAN AND REPTILE DIVERSITY  
RESEARCH CENTER (ARDRC-UTA)

And

BROWARD COLLEGE, through its BIOLOGICAL SCIENCES DEPARTMENT, (BSD-BC)

Concerning

SCIENTIFIC RESEARCH COOPERATION UNDER THE PROJECT:

Exploration and Speciation in the Volcanoes of the Indonesian Ring of Fire: A  
Large Scale Inventory of the Herpetofauna of the Highlands of Sumatra and Java  
(NSF Funded Proposal DEB-1146324 to Eric N. Smith and Michael B. Harvey)

This Memorandum of Agreement and Material Transfer Agreement (hereinafter referred to as MOA-MTA) between THE FACULTY OF MATHEMATICS AND NATURAL SCIENCES OF UNIVERSITAS BRAWIJAYA (hereinafter referred to as MIPA-UB), THE UNIVERSITY OF TEXAS AT ARLINGTON, a State Institution of Higher Education established under the laws of the State of Texas as an institution of The University of Texas System, operating its AMPHIBIAN AND REPTILE DIVERSITY RESEARCH CENTER (hereinafter referred to as ARDRC-UTA), and BROWARD COLLEGE, a political subdivision of the State of Florida, operating its BIOLOGICAL SCIENCES DEPARTMENT, (hereinafter referred to as BSD-BC), the three of them hereinafter referred to as "the Parties".

The Parties investigators are:

Principal Investigators:

1. Prof. Dr. Eric N. Smith, ARDRC-UTA, 501 S. Nedderman Drive, 337 Life Science, Arlington, TX 76010-0498, USA; (e.smith@uta.edu)
2. Dr. Nia Kurniawan, MIPA-UB, Jl. Veteran, Malang, East Java 65145, Indonesia; (wawan@ub.ac.id)
3. Prof. Dr. Michael B. Harvey, BSD-BC, 3501 SW Davie Road, Davie, FL 33314, USA; (mharvey@broward.edu)
4. Other individuals to be named and included later by mutual agreement.

Desiring to continue and expand their existing scientific research cooperation in the approved herpetology research fields on the basis of mutual benefits; Referring to:

- a) The scientific project (sometimes "Collaboration") entitled "Exploration and Speciation in the Volcanoes of the Indonesian Ring of Fire: A Large Scale Inventory of the Herpetofauna of the Highlands of Sumatra and Java"; funded by the National Science Foundation (NSF) of the United States of America under proposal number DEB-1146324 to Eric N. Smith (Principal Investigator, ARDRC-UTA) and Michael

B. Harvey (Co-Principal Investigator, BSDBC), Award Date: February 7, 2012, Award No.: DEB-1146324, effective September 1, 2012 and expires August 31, 2015 (sometimes "NSF Award");

b) The endorsement from THE RESEARCH CENTER FOR BIOLOGY OF THE INDONESIAN INSTITUTE OF SCIENCES (RCB-LIPI) for ARDRC-UTA and BSD-BC activities associated with herpetological aspects of the proposed study (a). This includes logistical support and permits for collecting and exportation of specimens. Signed by the Head of Zoology Division, Ir. Ahmad Jauhar Arief, M.Sc., at Cibinong on 12 January 2010, Ref. no. 05/IPH.1.03/KS.01/2010;

c) The collaboration endorsement by MIPA-UB, whose research group will be involved in many aspects of research supporting the above-mentioned scientific endeavor (a). Signed Dr. Nia Kurniawan at Malang on 11 January 2010;

Acknowledging the importance of combined action for long-term scientific research cooperation between the Parties, the importance of building worldwide capacities in science and technology, fortifying scientific infrastructure and culture, and the importance of science to the society at large; Pursuant to the prevailing laws and regulations in their respective countries as well as their respective governments' procedures and policies on international technical cooperation, including those under the NSF Award;

The Parties mutually agree to join forces according to the conditions as follows:

#### **Article 1 Objectives**

This Memorandum of Agreement and Material Transfer Agreement (MOA-MTA) will promote mutual cooperation between the stated institutions by way of named Principal Investigators and Associated Researchers. As such, this document forms the guidelines of a collaborative effort. It also serves as the basis of requests to the Ministry of Research and Technology for permission to collect, study, export and borrow biological specimens related to the proposed biodiversity research. Loans are admitted for a period of six months, or as necessarily prolonged by the parties. Biological specimens collected as part of this project form part of Indonesia's biological heritage and, except as may be allowed under Article 4, will in no way be used for commercial purposes and no financial benefit or profit will be incurred by any parties associated with this Collaboration and collection of biological material.

The objectives of the cooperation are:

1. To increase and strengthen scientific research cooperation between the parties in an efficient, collaborative and focused manner, making use of each others' existing (international) scientific networks and infrastructure;
2. To promote long term scientific capacity building, sustainable scientific networks and partnership, knowledge transfer and dissemination of science.

#### **Article 2**

### **Scope and Activities**

1. The activities of the cooperation under this MOA-MTA are focused on, but not limited to, the following:
  - a. Field biological inventory activities
  - b. Support science and technology capacity building in biology and conservation of amphibians and reptiles
  - c. Exchange visits of scientists
  - d. Joint research endeavors
  - e. Workshops and Symposia
  - f. Dissemination of scientific results generated through this cooperation for the benefit of the countries and institutions involved, as per usual and customary academic practice.
  
2. The scope of research activities will be focused on, but not limited to, the following research fields:
  - a. Herpetology
  - b. Biogeography
  - c. Genetics and conservation
  - d. Reptile and Amphibian Behavior
  - e. Taxonomy, Systematics and Anatomy
  - f. Natural History and Resource Management
  - g. Biodiversity studies of amphibians and reptiles as well as their prey, parasites, and symbionts.
  
3. Activities can be between two or more parties. Under the responsibility of a Party, each Party may involve third party individual researchers or scientific research institutions from other countries for the specific execution of activities described in the research proposal and this MOA-MTA if mutually agreed upon;
  
4. Outsourcing research to fulfill project goals, established in the NSF Award.
  
5. The Principal Investigators agree to conduct collaborative field research in Sumatra and Java.
  
6. The Collaboration will involve the Principal Investigators (listed above), and/or their research associates or students.
  
7. Period of agreement: five (5) years, starting as of MOA-MTA signing or the start of any funding under the NSF Award, whichever is earlier, with options for multiple extension of the collaborative research as mutually agreed.

### **Article 3 Responsibilities of the Parties and Funding**

Cooperation activities under this MOA-MTA will be subject to the availability of funding, however for this purpose:

1. The Parties shall strive to ensure that adequate research resources and other facilities will be made available and agree that all financial arrangements will have to be negotiated and are subjected to the availability of funds, including this acknowledgment that the NSF Award is a continuing grant which has been approved on scientific/technical merit, and is contingent on the availability of funds and the scientific progress of the project.

2. The Parties shall comply with the specific arrangements made in this MOA-MTA, including that scientific/technical progress of the project under the NSF Award must be documented through submission of annual and final project reports to NSF, and that the NSF Award grant is awarded pursuant to the authority of the National Science Foundation Act of 1950, as amended (42 U.S.C. 1861-75) and is subject to Research Terms and Conditions (RTC, dated July 1, 2008) and the NSF RTC Agency-Specific Requirements (dated 10/10), available at <http://www.nsf.gov/awards/managing/rtc.jsp>. The NSF Award is also subject as applicable to the Federal Funding Accountability and Transparency Act (FFATA) award term entitled, Reporting Subawards and Executive Compensation, which has been incorporated into the NSF Terms and Conditions referenced above. The Parties agree to comply with all applicable statutes, regulations, executive orders (EOs), Office of Management and Budget (OMB) circulars, terms and conditions, and approved applications related to the NSF Award.

3. The Parties shall keep each other well informed about their respective research and any progress made that is relevant to the activities under this MOA-MTA, including as requested by ARDRC-UTA, to assist ARDRC-UTA in the submission of any NSF-required reports under the NSF Award, and to provide information for the timely completion of any such reports, including any and all annual and final project reports to NSF.

4. The Parties will provide support in personnel to conduct research.

5. All publications resulting from this research will be publishable and co-authored as applicable by the participating scientists and/or research associates or students from Indonesia, BSD-BC and ARDRC-UTA, with specific authorship to be decided jointly by the Principal Investigators on the basis of intellectual contribution and as per usual and customary academic practice. Except as noted in Article 4 herein.

6. Specimen collections, vouchers, will be divided as best as possible equally in two, with species and locality representation evenly distributed between the Laboratory of Herpetology/MIPA-UB and the ARDRC-UTA. All holotypes and approximately half of the paratypes will be permanently deposited at a Museum in Indonesia (at the Laboratory of Herpetology/MIPA-UB or other institution at the discretion of MIPA-UB);

7. Field data generated from this cooperation, all electronic, will be shared and used by all parties, including photos, recording, movies or any other kind of documentations, after joint endorsement by the Principle Investigators.

8. Tissue samples for molecular work will be originally taken in tetra-plicate, with complete sample sets to be distributed to MIPA-UB and ARDRC-UTA, and two other institutions as agreed by the Parties.

9. ARDRC-UTA will distribute tissue subsamples for DNA sequencing and dissemination through the International Barcode of Life initiative and website through the NCB Naturalis European Barcode

Initiative and the Canadian Centre for DNA Barcoding, according to previous project agreement. Tissues will also be distributed to other national and international research collaborators, according to agreement by the Parties.

10. ARDRC-UTA will make any results originating from this Collaboration that was produced outside Indonesia available in Indonesia, at the Indonesian Institute of Sciences and MIPA-UB.

11. The ownership of intellectual property rights will be based on the rules of the 1992 Convention on Biological Diversity, subject to USA patent law and the NSF Award as applicable, which shall control to the extent of any conflict.

12. Camping, collecting and preservation supplies (i.e. expendable field materials) originating for this project will be donated to the Laboratory of Herpetology of MIPA-UB (approximate value \$5000), after the work is finished.

13. No commercial or for-profit use (e.g., Patent, medicine) will be made based on any collected scientific specimens and its parts (including DNA sequences) resulting from this Collaboration and project, except as may be allowed under Article 4.

The Role of ARDRC-UTA will be:

14. To provide and oversee the expenditure of extra-mural funding for collaborative work, both in the lab and field.

15. To coordinate research with other institutions, particularly in Europe and the USA, particularly BSD-BC, according to reference document (a), as project partners.

16. To provide training and seminars in Indonesia (at MIPA-UB and other institutions) on techniques, methods of biodiversity surveys.

17. To provide support for specific analyses of materials resulting from this Collaboration for Indonesian Researchers at the ARDRC-UTA (e.g., morphological and molecular work).

18. To provide necessary field and laboratory equipment.

19. To provide institutional support of grant expenditures.

20. To obtain import permits from the USA government.

21. To facilitate shipment of specimens to and from the USA.

22. Life and hospital insurance will be paid by the project to fieldwork participants, in order to cover any emergency expenses during fieldwork.

23. Support financially, via per diems including food and board, four Indonesian researchers to work on collected material at the ARDRC-UTA, and visit collections at museums in Europe and the USA: