





SPECIFIC INTERNATIONAL COOPERATION AGREEMENT

Specific agreement of academic and scientific cooperation between the Federal University of São Carlos (Brazil) and the Wuhan Botanical Garden, Chinese Academy of Sciences (China) on the fields of Genetics and Evolutionary Biology, and regarding topics on plant phylogenetics, biogeography and population genetics

The Federal University of São Carlos, based on São Carlos campus, at *Rodovia* Washington Luís, km 235, in São Carlos, in the state of São Paulo, Brazil, in this act represented by its rector, Prof. Wanda Aparecida Machado Hoffmann, Ph.D., hereinafter referred to as "UFSCar", on behalf of its Department of Biology; and Wuhan Botanical Garden, Chinese Academy of Sciences, based at Moshan, Wuchang, 430074 Wuhan, Hubei, P.R. China, represented in this act by its vice dean, Prof. Qingfeng Wang, Ph.D., hereinafter referred to as "WBG-CAS", on behalf of the Institute of Wuhan Botanical Garden, Chinese Academy of Sciences;

WHEREAS both institutions are interested in the development of Higher Education, science and technology;

WHEREAS the parties, on behalf of their respective foregoing divisions, intend to formally establish institutional and academic relationship, aiming at the progress of both through the joint execution of academic, scientific and technical activities on the fields of Genetics and Evolutionary Biology, as well as regarding topics on phylogenetic systematics and genetics of populations;

ENTER INTO THIS AGREEMENT in conformity with the following clauses:

FIRST CLAUSE - OBJECTIVE

The present agreement institutes and rules academic and scientific cooperation between the parties on the fields of Genetics and Evolutionary Biology, as well as regarding topics on phylogenetic systematics and genetics of populations, which may consist in the execution of the following activities in said areas of knowledge and about said scientific themes:

- **I.1.** Mobility of faculty (*i.e.*, professors, researchers and scientists), through which they can give lectures and workshops, teach courses and carry out or participate in research activities at the host institution;
- **I.2.** Joint development of research projects, such as the project "Phylogeny and biogeography of aquatic plants" (see Annex A);
- **I.3.** Joint production of scientific publications;
- **I.4.** Co-organization of academic, scientific and cultural events like congresses, symposiums, seminars and others.

Sole paragraph. When the mobility of faculty is not possible or not feasible to either institution, the activities provided in I.1 may be developed remotely.

SECOND CLAUSE - COORDINATION

II.1. In order to coordinate the implementation of this agreement, UFSCar designates Dr. Karina Martins, professor of its Department of Biology, and WBG-CAS designates Dr. Jinming Chen, Ph.D., scientist at the Institute of Wuhan Botanical Garden, Chinese Academy of Sciences.

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II.2. The coordinators will supervise the research plans and work plans corresponding to the mobilities ruled herein, and must seek solution for the academic and administrative issues referring to the present instrument from its entry into force.

THIRD CLAUSE - MOBILITY OF FACULTY

In order to develop the mobility provided in the First Clause hereof, both parties undertake to observe the following conditions and execute in cooperative manner the following actions:

- **III.1.** The maximum amount of faculty from each institution in mobility at the other, at any time, must not exceed five members.
- III.2. The length of stay at the host institution must not exceed 30 days.
- III.3. Mobilities require formal invitation by the competent/authorized person(s) from the host institution, with observance of procedures in effect at each institution.
- **III.4.** Research plans or, where applicable, work plans corresponding to the activities that will be developed at the host institution shall be elaborated for each faculty member. Those plans must be prepared before the faculty members' arrival at the host institution and, if necessary, in conformity with its procedures.
- **III.5.** Faculty from any institution in mobility at the other institution will be subject not only to the rules in force at this institution, but also to the immigration legislation of the country where it is situated.
- **III.6.** Before arriving in the country of the host institution, faculty members accepted for mobility shall observe the insurance requirements of said institution.
- III.7. The host institution shall waive the academic fees (e.g., bench fees) regarding the mobilities.
- III.8. When hosting faculty from the other institution, both institutions will facilitate the use of its own facilities, equipments, laboratories and library material which are necessary for the development of the activities within their respective mobility.
- III.9. If necessary, the host institution will provide the home institution or directly the interested faculty member with document(s) reporting the academic and/or scientific activities developed by him/her during his/her mobility and, where applicable, informing the results that he/she has achieved within such activities.

Sole paragraph. The activities developed hereunder do not generate any formal employer-employee relationship between the personnel of any institution and the other.

FOURTH CLAUSE - RESPONSIBILITIES OF THE PARTIES

- **IV.1.** The parties undertake not to publish, divulge or, in any way, exploit confidential information, namely the information which is not in public domain, including the information belonging to the other party that had been generated prior to the execution of this agreement and has been obtained due to its implementation.
- **IV.2.** The parties are bound to total responsibility for any eventual misuse of information and data obtained because of the cooperation described herein.

FIFTH CLAUSE - FINANCIAL RESOURCES

V.1. The parties are held responsible for all costs pertaining to their respective participation in the fulfillment of activities on the framework hereof, but will not be compelled to affect resources from its respective own budget in order to guarantee the necessary financial support for the execution of such activities.

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V.2. In order to propitiate the accomplishment of the activities foreseen herein, the parties can individually or jointly pursue resources at national and international organizations dedicated to funding research and development, as well as at companies in their respective countries.

Sole paragraph. The participants in the mobilities set herein are responsible for their personal expenses referring to their participation in the activity, such as travels, housing, food, transportation, bibliographic material, insurance and others.

SIXTH CLAUSE - INTELLECTUAL PROPERTY

- **VI.1.** All data, technologies, technical and commercial information, software, procedures and routines, registered or not, belonging to the Parties and/or to third parties, but for which the Parties are responsible, prior to the effective date of this agreement, and which have been disclosed to the other Party for the sole purpose of developing activities on the framework hereof, will remain as property of the party to which the information has already belonged.
- VI.2. The Parties hereby agree that results able of being protected by intellectual property rights, arising from the activities developed hereunder, will be jointly owned by UFSCar and WBG-CAS. Such intellectual property rights, as well as other rights and duties of the parties, must be stipulated in further specific contract, which shall observe the relevant legislation.
- **VI.3**. WBG-CAS acknowledges hereby that UFSCar features an Innovation Agency, which is in charge of managing the university's policy on innovation. Thus, further results arising herefrom, which may become property of the parties, shall be communicated to UFSCar Innovation Agency, so that it can execute the relevant procedures for the protection of such results.
- **VI.4.** Both Parties shall communicate each other about the generation of new processes and/or products able of being protected by intellectual property rights resulting from the fulfilment of the objectives hereof.
- **VI.5.** Any publication or disclosure, by either Party, of the results jointly produced in the scope hereof requires the written consent from the other party. The Party directly interested in publishing or disclosing such results must reveal the content of the publication or disclosure to the other Party, and this Party, within sixty (60) days from the date when it receives the electronic document, will give its consent to or disallow the publication of the document, along with the corresponding justification. In the event that such decision and/or authorization are not communicated within the term stipulated above, the publication by the directly interested Party will be deemed authorized.

SEVENTH CLAUSE - VALIDITY

This agreement is valid from the date when it is signed by both parties and will remain in effect for five (5) years.

EIGHTH CLAUSE - MODIFICATION AND TERMINATION

VIII.1. The present agreement may be modified, what includes the extension of its validity period, through amendment signed by both parties.

VIII.2. Either party can terminate this instrument upon well-founded forewarning in writing, presented within at least three (3) months and with return receipt, without causing harm to ongoing activities.

NINTH CLAUSE – SOLUTION OF CONTROVERSIES

Questions and controversies arising from the interpretation or the execution of this agreement will be solved by direct entente between the parties. In case it is not possible, they shall jointly indicate a third party, natural person, to act as arbitrator.

The parties sign the present instrument in four identical copies, two in Portuguese and two in English, to the same effect.

FEDERAL UNIVERSITY OF SÃO CARLOS

WUHAN BOTANICAL GARDEN, CHINESE ACADEMY OF SCIENCES

Prof. Wanda Apareoida Machado Hoffmann,

Ph.D./ Rector

Prof. Eliana Akie Simabukuro

Ph.D. Head

Department of Biology

São Carlos, 08 30 2019

Dr. Hao Wu

Deputy Director

Prof. Qingfeng Wang

Ph. D Vice Dean

Wuhan Botanical Garden

Wuhan,

ANNEX A – Abstract of the joint research project "Phylogeny and biogeography of aquatic plants"

Aquatic plants are not a unified biological group; they are phylogenetically dispersed across the angiosperms. Aquatic plants live in diverse aquatic environment, which promote aquatic plants evolved diverse traits to adapt the environment (Les & Philbrick, 1993). Aquatic plants often exhibit broad variation in morphology, life history, and reproductive systems, making many taxons to be taxonomic difficult groups. Aquatic vascular plants generally show broad distributional ranges. Dispersal should have been frequent enough to assure the quick colonization of extensive areas following glacial retreat, but dispersal limitation is still apparent in areas separated by geographic barriers (Santamaria, 2002). However, the biogeographic patterns of many aquatic plant groups with worldwide or inter-continent disjunctive distributions still remain unclear.

In the past several years, our research group has engaged in phylogeny and biogeography of several aquatic plant groups, such as the subclass Alismatidae (Chen et al., 2004, 2005, 2013), the families Alismataceae (Chen et al., 2012), Hydrocharitaceae (Chen et al., 2012) and Nymphaeaceae (He et al., 2018). All these studies are mostly intergeneric phylogeny works. We also have studied the molecular phylogeographic patterns of many representative aquatic plant species in special and interesting biogeographic regions, such as Isoetes hypsophila (Chen et al., 2008), Hippuris vulgaris (Chen et al., 2013), and Ranunculus bungei (Chen et al., 2014) from the Qinghai-Tibetan Plateau and adjacent areas in China; Ottelia acuminata from the Yunnan-Guizhou Plateau in China (Chen et al., 2017), Four endemic Sagittaria species (Alismataceae) in the Sino-Japanese Floristic Region of East Asia (Chen et al., 2016). Currently, we have several projects of Within-genus phylogeny and biogeography of aquatic plants, such as the genera Sagittaria (Alismataceae), Hydrocleys (Alismataceae), Ottelia (Hydrocharitaceae), Nymphoides (Menyanthaceae) and Nymphaea (Nymphaeaceae). We aim to (1) study the taxonomy and construct the worldwide phylogeny of each genus; (2) determine the relative importance of dispersal and vicariance in shaping the current geographic patterns of these aquatic plants, (3) infer the dispersal routes and the origins of the regional aquatic plant diversity.

In our previous fieldworks, we have sampled most of the geographic regions of each studied genus, for example, we have sampled almost all the species (five species in Africa, one species from Australia and all recorded species in Asia) in the genus *Ottelia* except for the Brazilian endemic *O. brasiliensis*. Brazil is an important distribution region of many aquatic plants. The inclusion of these aquatic plants from South America will greatly improve the robustness of the phylogeny and biogeography analyses in our projects. We hope we could all benefit from our collaborations, such as knowledge of the phylogeny and origin and dispersal of Brazilian and Asian aquatic plants.