Maya International Cooperative Biodiversity Group

The Maya International Cooperative Biodiversity Group (the Maya ICBG) is a consortium project funded by a U.S. Government grant to promote human health, economic development, and diversity conservation through sustainable development of medicinal plant resources and associated traditional knowledge of the Maya-speaking populations of the state of Chiapas in southeastern Mexico. The members of this consortium are a U.S. educational institution the University of Georgia (UGA http://guallart.dac.uga.edu), a Mexican educational institution El Colegio de la Frontera Sur (ECOSUR http://www.ecosur.mx) numerous Maya communities, and a small for profit company of natural products chemists Molecular Nature Ltd. (MNL http://www.molecularnature.com/mnlweb/) The Maya ICB is led by Brent Berlin, Graham Perdue Professor of Anthropology, Laboratories of Ethnobiology of the department of Anthropology, University of Georgia. This Fact Sheet provides basic information about the Maya ICBG, with emphasis on those elements directly relevant to indigenous people in Chiapas. For more detailed information visit our websites or contact the associated personnel.

1) Collection Of Plant Sample For Natural Products Research.

While the plans of the project include collection and analysis of plant samples for development of commercial pharmaceutical and agricultural agents with potential for local, national, and international markets, the Maya ICBG has yet the collect a single sample of plant material for these purposes or to conduct a single chemical study of their potential biological activities. Collection of plant for drug discovery will not take place until formally authorized by both the Mexican federal agencies and local Maya communities and municipalities involved.

2) Prior Informed Consent.

The Maya ICBG has already received formal written consent and invitations to collaborate from nearly 50 communities in 15 municipalities of Highland Chiapas. In each community these consent agreements have been obtained observing customarily recognized procedures of the local Maya communities and a locally defined methodology that sets new international standards for both comprehensiveness and accessibility. The total population represented by these communities is estimated to be greater than 30,000 people. This outreach program includes presentations to community officials and assemblies about the aims and activities of the project, its potential financial rewards (and the large risk that there will be no significant financial rewards for anyone in the project), and the non-monetary benefits that are more certain to be derived from participating. The community presentations are detailed theatrical skits in one of the three predominant Maya languages of the area (Tzeltal, Tzotzil, or Tojolabal). The outreach program is the first step in a continuous process of information-sharing that will be carried out through all stages of the partnership.

3) Benefit-sharing Arrangements With Maya Communities.

Perhaps the most important and most likely long-term benefits of the Maya ICBG will emerge from its substantial investment in preservation and dissemination of traditional ethnomedical knowledge among the Maya communities in the Highland, from development of income sources from the sustainable use of biodiversity, and from research on health conditions that are important locally. In addition, a modest but significant financial benefit would be generated from licensing compounds for testing to pharmaceutical companies with proper safeguards for Maya intellectual property. It is also possible that more substantial benefits could be generated from an as yet unidentified commercial product that might emerge from the Maya ICBG. By prior agreement, all monetary benefits that result from the activities of the Maya ICBG will be shared equally among the four principals, ECOSUR, UGA, MINI, and the Highland Maya peoples of Chiapas. The Maya peoples are represented financially by a trust fund as discussed below.

4) Trust Fund.

"The Chiapas Highland Maya Fund" will receive and administer financial benefits for the Maya peoples to use for community development work relating to promotion and conservation of traditional ethnobiological knowledge. This fund was initiated with a philanthropic donation of $ 30,000 from Brent Berlin. This deposit was the full amount of the monetary award that Berlin received as part of the Fyssen Foundation International prize for his prior work in cognitive anthropology and linguistic. In addition to the original $30,000 there have been generous contributions from individuals wishing to support effort on behalf of the well being of the indigenous peoples of Chiapas. The final format of the trust fund awaits the identification or establishment
of a truly representative non-governmental body or board to further develop it and administer the fund. A challenge to the Maya ICBG from its inception has been the identification of a body of Mayan individuals or an organization that can legitimately speak for the widespread, linguistically and politically diverse Maya people of Chiapas. The somewhat narrowly focused healers organizations in Chiapas, including those which have recently reformulated themselves as COMPITCH (Consejo de Médicos y Parteras Tradicionales de Chiapas), have been viewed by numerous Maya Chiapan, Mexican and international advisors as insufficiently inclusive or representative to assume this role. However, they have been invited to participate in the further development of the trust fund format as part of a large effort.

5) Technology Transfer And Capacity Building.

A major component of the Maya ICBG mission is building local capacity for conservation and sustainable use of biodiversity. For example, 20 maya technical assistants are already in training to learn botanical collection and curation, laboratory and herbarium techniques, Maya language transcription, and computer skills that will prepare them to work as technical assistants on this project and for future employment. In addition, the Maya ICBG supports undergraduate, graduate, and post-graduate students at ECOSUR and UGA in agroecology, systematic botany, ecological anthropology, medical anthropology, biochemistry, ethnobotany, and conservation biology. The Maya ICBG has provided substantial funding and technical guidance to establish the first high quality natural products laboratory in Chiapas, on the campus of ECOSUR. Other projects for transfer of technology and local capacity building have begun in the past two years and still others are planned. Projects include training Maya and other Mexican students in tissue-culture propagation (and establishing a laboratory in which to do this work), as well as development of field propagation methods for species with potential for use in reforestation and biodiversity protection programs, for production of local phytomedicinal and pest control agents, and for marketing as ornamentals.

6) Community Medicinal Plant Gardens.

In response to requests from maya communities, the Maya ICBG has facilitated the development of eight medicinal plant gardens in five municipalities. The project provides technical support and regular visits by project personnel to provide help with garden development, and provides basic gardening tools to establish and maintain these gardens, as requested by community members. It also facilitates linkages between Maya communities who wish to exchange plants and information used locally. The gardens are owned and controlled by community members and have been developed for the sole purpose of providing ready access to medicinal plants for community use and to facilitate preservation of the plants and associated medicinal knowledge.

7) University Of Georgia Botanical Garden Collections.

Traditional botanical garden collections have been made in years past for the sole purpose of education and public awareness of the importance of biocultural diversity. The plants are located in small educational botanical garden on the University of Georgia campus than is free and open to the public. No botanical collections by Berlin or other members of the Maya ICBG have been cultivated for biotechnological purposes in the University of Georgia Botanical Garden, nor would such a practice be consistent with its mission. The ethnobotanical collection from Chiapas growing in the UGA Garden represent approximately 25 species of Chiapas plants collected during the past three years. The majorities of these species are common weeds (as is frequently the case with medicinal plants), and enjoy a wide geographic distribution in Chiapas and Mexico. Many also occur naturally within the continental US. None are endemic to Chiapas, and none are endangered species on the CITES list.

8) Biodiversity Survey Of The Regional Flora.

During July through November 1999, the Maya ICBG made scientific herbarium voucher collections in four municipalities in Chiapas. The collections were made by trained Maya collaborators for the purpose of developing as illustrated practical manual of the plant species of the region to be published in Spanish, Tzeltal, Tzotzil, Tojolabal, and English, with free local distribution to promote preservation of traditional Maya knowledge of the plants among local communities. The collections are of plant material that is dried and sterilized for preservation and storage in local, national, and international scientific herbaria, and they are neither used for, nor useful in, biotechnological processes. All collections were made with proper federal permits and permissions from local Maya communities.