

GLOBAL FIELD TRAINING IN CONSERVATION BIOLOGY: PROGRAMS IN INDONESIA

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Introduction

Conservation of the world's biological diversity represents a challenge of monumental proportions and monumental losses should we fail. The extinction of some of our most critically endangered primate species, for example, is inevitable during this century unless we are able to effect better management and conservation measures. Collaborative partnerships (specifically, active, long-term partnerships) between habitat and non-habitat country institutions are essential in helping to facilitate the research, training and outreach programs needed to promote global conservation.

For more than 15 years, the University of Washington National Primate Research Center together with institutions in Indonesia, Nepal, China, Bangladesh, Thailand, Democratic Republic of Congo, and Mexico have been working as global partners to develop comprehensive educational and training programs in the field of conservation biology. Our objective is to provide broad-based field training in Conservation Biology for university students and professionals from collaborating institutions. The ultimate goal is to foster a growing body of well-trained, regional experts who are capable of implementing the programs needed to ensure the future of their countries' important natural resources and the conservation of biodiversity.

Among the an-going global partnerships, one stands out as a model for international field training in conservation biology – the collaborative field training program held on Tinjil Island, Indonesia - between the University of Washington National Primate Center and the Primate Research Center at Bogor Agricultural University. Offered annually for the past 18 years, the "Field Course in Primate Conservation Biology" (formally, the "Field Course in Primate Behavior and Ecology") on Tinjil Island has provided an opportunity for students and professional in Indonesia to obtain education and training in field primatology and conservation biology.

Materials and Methods

The field course in Primate Conservation Biology has been conducted annually on Tinjil Island since 1991. Tinjil island (approx. 600ha in size) is located about 16km off the south coast of West Java. The island was established as a Natural Habitat Breeding Facility for free ranging long-tailed macaque (*Macaca fascicularis*) in 1987 (Kyes, et al 1997) and provides an ideal site for field training. The field course is three weeks in length and participants (15-20 university students and professionals) live on the island for the duration of the course. The course focus on primate conservation biology and involve daily lectures and related field exercises on topics such as conservation biology, primate behavior and ecology, field study methods, population surveys, behavior sampling methods, management and conservation strategies, human-primate interaction, emerging infectious diseases, biological sampling, and vegetation survey. Participants also conduct a short independent research project relating to conservation biology during the course. As part of the training program, the participants also organize and conduct a community outreach education program on conservation-related topics for school children from local villages. The outreach program involves giving a powerpoint presentation on local biodiversity and conservation concerns, followed by an art contest featuring conservation. These outreach programs help to promote environmental awareness and generate a sense of commitment and involvement in the conservation of biodiversity.

To help in evaluating the effectiveness of the training programs, we have recently begun implementing a PRE-course / POST-course exam to assess whether the training significantly increases the participants knowledge base on the topics covered. Participants take a pre-course exam (20 multiple-choice questions) at the beginning of the course and a similar post-course exam at completion of the course.

Results

To date, a total of 17 field courses have been conducted annually on Tinjil island. A total of 241 participants have taken the course (including university students, staff and professionals) representing 16 institutions around Indonesia: Bogor Agricultural Univ. (Fahutan, FMIPA, FKH, Fapet, PSSP); Univ. Gajah Mada; Univ. of Islam Assya'iyah; Univ. of Udayana; Sam Ratulangi Univ.; Univ. Negeri Jakarta; Univ. National; Ragunan Zoo; Schmutzer Primate Center; Monkey Forest-Ubud; PHKA; Perum Perhutani; Balai Diklat Kehutanan Kadipaten; Balai Konservasi SDA SKW III; Animal Quarantine, Jakarta International Airport; and PT. BioFarma. Additionally, more than 60 university students from universities outside of Indonesia also have attended the field courses including Univ. of Washington, USA; Miyazaki Univ., Japan; Cambridge Univ., UK; Univ. of Upsala, Sweden; and Danish Univ., Denmark - thus making this a truly international program.

Discussion

Based on the success of the field course on Tinjil Island, a second field training program was developed in Indonesia in collaboration with Sam Ratulangi University (North Sulawesi) beginning 1996. The product of this collaborative program, the "Field Course in Conservation Biology," has been conducted annually at the Tangkoko Nature Reserve since 1998 - also with great success (Kyes, et al, 1998).

Building on the model of the Tinjil field course, we have gone on to establish similar field training programs in conservation biology in several other countries including, Nepal, China, Bangladesh, Thailand, Democratic Republic of Congo, and Mexico. As a result of

these expanding global partnerships, to date, we have conducted a total of 45 field courses for more than 700 university students and professionals (including park rangers, government forestry staff, environmental journalists, and staff from conservation NGOs). Additionally, more than 40 community outreach programs have been conducted for over 2000 elementary and middle school children from rural villages.

As stated at the outset, we believe these global partnerships (like the one presented here) are essential in helping to facilitate the research, training and outreach programs needed to promote global conservation.

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