

News Letter

Foreign Student Service, Agriculture

研究指導委託で学生を東南アジアの大学へ送りだして

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〔森林科学専攻〕

昭和56年（1981年）熱帯農学専攻が設立され、熱帯の森林・林業研究、それも独立専攻として、大学院学生だけの研究にたずさわることになって、当然のことながら、大きな問題に直面した。研究・教育のため、自分自身がいかに熱帯森林研究に出かけるかという問題と、熱帯の森林研究に熱い熱意を持って入ってくる大学院生をいかに教育するかという問題である。

私自身、初めての熱帯は昭和38年、大学院博士課程1年時のタイであった。それも神戸から貨物船に乗って15日もかかって行った。それまでの探検隊はほとんど船だった。私が船で行った最後であろう。その後は飛行機になったが東南アジアへはよく出かけている。多分60回近くになっているはずだ。

熱意をもって入学してくる大学院学生、入学式の次の日から熱帯へ行きたいという。私にしても、初めから熱帯を知っていたわけではない。ビギナーだったことは確かだ。それなら、入学式の次の日から行かせてもいい。しかし、何をやりたいのかははっきりしないのに、送りだしても、それはただの旅行になってしまう。大学院学生として、研究目的をはっきりさせ、それに関する十分な知識・判断力を持っていないと、いくら長期に滞在しても、研究はできず論文は書けない。それも、旅行なら、勝手だが、研究で行くとなると、どこかの大学か研究所にお世話にならないといけない。そこでまったく知識のないことがばれても困る。たとえば、「これがチークだよ」といわれて、「チークって何ですか」というのと、「これがチークですか、見たかったのですよ、やっぱり大きな葉をしていますね」といえるのは大きなちがいがいた。

論文をまとめるにしても、自分で構想を練り、データをとり、関連論文を十分読み、討論できないといけない。修士課程では国内で関連の研究をし、実力を蓄え、博士課程では熱帯へ行って、その研究を発展させるというのが理想のような気がするが、それには2年必要だという理屈も弱い。若ければ若いほど、体力はあり病気をしないし、言葉の上達も早い。このことも海外での調査・生活には必須のことだ。それなら、入学式の次の日から出掛けていくのを止めることはない。

熱帯農学専攻以来、早、20年近くになるが、このことは今でも私にとって大きなジレンマである。どちらがいいとはいえない。初めはみんなビギナーだとお思いから、ともかく早く海外に出すことにした。行きたいという気持ちが第一だと思うからである。熱帯森林・林業研究を日本にいてできるはずもないし、私自身、そんな教育に自信がないからでもある。

その留学をうまくサポートしてくれたのが、研究指導委託である。研究課題、研究計画、受けている研究助成・奨学金などを希望大学に伝え、受入承諾をもらうとともに、指導教官を決めても

らい、農学研究科教授会で承認を得るという手続きがあるが、研究のための認められた留学となる。修士で1年、博士で2年の制限があるが、延長例もある。最大の利点はこの間、休学の必要がないことである。帰って来たら、進級しているということだ。

それでも、この手続きが簡単に運ばないことも多い。とくに、受入の前例がない大学では、あきらめないといけないこともある。たとえば、私に代わって研究指導してくれと依頼したら、「その学生を調査に連れていく場合、その旅費はあなたがだしてくれるのか」といった返事だ。いくら請求されるのか見当もつかず、こちらも尻込みしてしまったことがある。

こんなことの他にも、やってみるといろいろな問題がでてきた。インドネシアでも農学部と協定のあるボゴール農科大学への留学では授業料は免除されているが、ガジャマダ大学では協定がなく授業料を払わされている。どこへ行くにしても、大学院学生の留学なので、それぞれ研究したい課題をもっている。相手先の大学院で単位をとるのが目的ではない。研究生・単位をとらない大学院生にしてもらわないといけないのだが、この理解を得るにも時間がかかったことがある。いずれにしても、常々、東南アジアの大学、そこの研究者とどのくらい親密なつきあいをしているかで、すべてが決まってくる。私のつき合いが大学院生の行動をも左右していることはまちがいない。

ともかく、この研究指導委託制度によって、これまで私の研究室から、インドネシア、ボゴール農科大学へ2名、ガジャマダ大学林学部へ1名、タイ、カセツワート大学林学部へ3名、マレーシア農科大学林学部へ1名、フィリピン、アテネオ・フィリピン大学へ1名、ベトナム林業大学へ2名、ミャンマー森林研究所へ



ベトナム、ハノイまで
139 km 地点、ホアビン省の茶店で一服

1名など、長期留学が続いている。この研究指導委託でなく、3ヶ月以内の渡航届、3ヶ月以上の渡航願で、海外調査に出かけている学生も多い。

中には初めて飛行機に乗る、初めて外国に行くというのが、研究指導委託での留学という学生もいる。船で行ったという旧人類からみれば、隔世の感がある。いい時代になったものだ。それで

も知らない外国で暮らすだけに、それも一人ですべてをやらないといけない。大学においても、日常生活でも多くの人々の信頼を得ないといけない。それなしに研究がはかどるはずもないし、生活が楽しいはずもない。それなりに失敗もしているのだろうが、それは大きな経験・糧となっている。帰ってくるとみんなたくましくなっている。これはうれしいことだ。

交流の歩み (14)



Reflection on a Six Month Stay at Kyoto University

Hou-min Chang, Professor

(North Carolina State University
Raleigh, USA)

From the middle of February until the middle of August 1998, I serve as a visiting professor at the Division of Forestry and Biomaterial Science, Graduate School of Agriculture, Kyoto University. This has been a wonderful six months for my wife and me. I was most pleased to oblige when Prof. Nobuchi asked me to write a short article for the News Letter for the International Academic Exchange of the Faculty of Agriculture. Since Kyoto University is one of the most prestigious universities in the world, my joint research project with Prof. Nakatsubo and his students has been, as expected, very rewarding and enjoyable. I shall not comment on my research program here. Rather, I would like to share with you some observations I made in Kyoto.

The education systems are quite different between Japan and USA. Taking graduate education as an example, the two systems are different in many aspects. First of all, students in Japan take entrance examinations to enter graduate school whereas in USA students are admitted to graduate school based on their undergraduate records and their academic references. Once admitted, most students in USA receive an assistantship that is normally sufficient to cover their tuition and fees and their living expenses. The Japanese graduate students, on the other hand, have few assistantships available to them, but about one half of them may take out an interest free government loan, which covers about one half of their tuition, fees and expenses.

Laboratories, each of which consists of a professor, an associate professor and an instructor, are the basic units that constitute the graduate schools in Japan. Once a student is assigned to a laboratory upon his entrance to the graduate school, the student learns mainly through his research work under the guidance of the three faculty members and through interactions with other students in the laboratory. The graduate students are required to take only a few graduate level courses, mainly in the same division, and there is little chance for the student to interact with other faculty members of the division, let alone other division or other graduate school of the university.

In universities in USA, graduate students are admitted to a department, which consists of faculty members of related disciplines. All faculty members of the department, from assistant professors to full professors, are all independent. A graduate student may work with any one or more of the faculty members as his major professors and is encouraged to interact with as many faculty members. In addition to his major professors, his advisory committee consists of at least 3 and may be up to 6 faculty members,

at least one of them must be from outside of the department as his minor professor. Each department offers many graduate courses that are open to all graduate students in the university. Each graduate student must have a minor field for his advanced degrees. A minor field is normally satisfied by passing three graduate level courses in a discipline outside of his major. For example, my graduate students in the Department of Wood and Paper Science normally take Advanced Organic Chemistry and Instrument Analysis courses from the Department of Chemistry, Statistics and Experimental Design courses from the Department of Statistics, or Polymer Chemistry and other process related courses from the Department of Chemical Engineering.

As a result of the differences between the two systems, graduate students in Japan tend to have more depth in their field of study and have excellent experimental skills. The graduate students in USA tend to be broader in their fields of training and may be better equipped to adapt to the real world. It is hard to say which system works better. Perhaps the Japanese system may work better for the Japanese society and vice versa. Regardless of the difference, I found that the graduate students at the Kyoto University are generally diligent and of high qualities.

This is not the first time for me to spend my sabbatical in Japan. In 1981, I spent 4 months as a visiting professor at the University of Tokyo. Since then, I visited Japan many times for conferences, seminars and other business related matters. However, this past six-month period has been quite different from my previous visits for several reasons. First, in 1981, my children were young and my wife and I have to spend time to tend to their needs, leaving little time for exploring. Secondly, my Japanese has improved over the past years to the extent that I can read and carry on conversations without much difficulty. Thirdly, my wife and I did our homework before our departure, studying Japanese history and culture. Finally, Kyoto is probably the most desirable city in Japan to spend six months. The city is full of history and our prior efforts in acquiring some knowledge of Japanese history, culture and language has been invaluable in our explorations of the city's many historical sites. The mountains surrounding the city have many excellent hiking trails and we really enjoyed our many weekend outings. Using Kyoto as a base, we also traveled to many other places in Japan, making use of the wonderful public transportation systems. Nara, Yoshinoyama, Tsukuba, Takayama, Kanazawa, Kumamoto, Kagoshima and Yakushima all gave us long lasting memories.

The International House of Kyoto University at Shugakuin contributed greatly to our comfort in Kyoto. The facility is well equipped, members of the staff are helpful and cordial and the location is most convenient.

Finally, I would like to thank Prof. Shiraishi for the invitation to come to Kyoto University. My wife and I are especially indebted to Professor Nakatsubo, professor Minato and everyone in their laboratory. They have been such a wonderful host for us that make our life in Kyoto forever in our memory. We are also very pleased to have the opportunity to enjoy the friendship of many old friends in Japan, especially those in Kyoto area.



Breaking the ice

— Letter from a Friendship
Ambassador —

Henry Y. Lejukole

(Division of Biosciences, Sudan)

Now you may want to ask; what is this thing about Friendship Ambassadorship? Well, true to the meaning of the words, it is about being an emissary of friendship or put in other words, a bridge of friendship linking the people of Kyoto and my country, Sudan (the Sudanese). Thanks to the press, Sudan has been much in the news recently for reasons I would rather not get into here; suffice it to say I won't send anyone scrambling for a world map or something, except for those least in keeping with current events.

It all started in 1974 for me, when I among others was sworn into office, so to speak, as honorary friendship Ambassador (*meiyo yuko taishi*) for Kyoto prefecture, with a mission to foster mutual understanding and friendship between the people of Kyoto and my country. Since then I have traveled the length and breadth of Kyoto prefecture; been involved in citizens exchange forums/meetings; participated in many school and college activities; spoken in women's association meetings; etc. These activities have put me in touch with a broad spectrum of the people of Kyoto in terms of age, sex, and geographical spread, and has broadened my knowledge about Kyoto, perhaps much more than that of the average residents, and definitely more than that of the casual visitor in town.

More often than not, to many foreigners and locals alike, Kyoto just means Kyoto city. Of course, I would say Kyoto city definitely offers a lot of the cultural and natural heritage of Japan such as temples and shrines, imperial villas, gardens, traditional cuisine, scenic seasonal colors of spring and autumn, and the pomp and merry making that comes along with the festivals of the year, and so on. The truth however is, there is much more to Kyoto than just what is within the confines of the city. It takes a ride out of the city, meandering in between the hills to enjoy the beauty and serenity of nature bestowed to Kyoto and Japan in its abundance. Many have yet to walk the 'romantic road of Maizuru' that would take you through nature, history, festivities, market, and amusement among other attractions. Museums of the like of 'Red Brick', and 'Memorial for War Returnees' are out there waiting for you. You should go see the unique tombs of the kings (*kofun koen*), and lend a hand to the traditional art of paper making in Ayabe. As you head further north to behold the natural splendor of Amanohashidate at the Japan sea (said to be one of the best three sites of nature in Japan), a visit to the grass thatched roof village in Miyama-cho will be worth while, and while there if the opportunity lends itself, take it easy and join the natives fishing *ayu*.

Talking of fishing brings up the main recipe of my letter, that is, the need for social interaction with the local people where we are, our hosts and neighbors. Come to think of it, anyone can get to enjoy all the beautiful tourists attractions in town without ever delving into the realm of personal relationship with anybody at all, no matter whether one is a long term resident here or just on a short visit. Friendship cannot be harvested instantly by the eye

but takes an effort to break the communication barrier and express ones feelings, opinions, and appreciation of the things about others, as a show of our good disposition towards them. Friendship knows no boundaries and to trade information about ourselves, our people or countries not only widens our circle of friends but rids the society around us of any misconceptions, suspicion, stereotypes, or utter ignorance about us. For me, I have been hosted, accommodated, and entertained out there by many good families that I did not know before getting to enjoy their kind favors. I have participated in rice harvesting (*ine kari*); gone out fishing with the local folks; taken part in games like *kendama*, *take-tombo*, *origami*, etc. with school children; rattled some portable shrines (*Omikoshi*) in local festivals, yelling out *yoi-sho*, *yoi-sho*; pounded away rice cake (*omochi*); and gotten into all sorts of fun with both kids and adults.

My better days in Kyoto have yet to come to an end, and while the opportunity is still here, as a way encouraging others to enjoy their stay in this country, I wish to commend the people Kyoto as being considerate, kind, and truly concerned about the welfare of foreigners in their midst. In forums I have attended on town building (*machi zukuri*), they have always sought suggestion on ways to make their cities or towns more accommodating to foreigners. Special bazaars, home stay programs, tours, and many other functions are at the top of the agenda of local communities to help foreigners feel at home away from home. The challenge is for the *Gaijin* to favorably respond to these kind gestures of good will and reward the local communities by building bonds of friendship. I have heard it said 'if Mohammed does not go to the mountain, the mountain comes to Mohammed'; so sometimes we should be prepared to take the initiative to break the ice and reach out to our surrounding. I would therefore like to encourage the foreign students and scholars to cultivate and pursue the gems of friendship that will bind us to the people of Kyoto even after returning to our home countries. It is needless to feel lonely and come down with stress when you could enjoy your stay here and feel very much at home.

農学部国際交流ニュース

農学研究科博士後期課程編入学考査

平成11年度農学研究科博士後期課程編入学考査は、1月26・27日に行われ、21名が合格しました。このうち私費外国人留学生は、応用生命科学専攻2名(韓国)、応用生物科学専攻1名(中国)、地域環境科学専攻1名(バングラディッシュ)、生物資源経済学専攻2名(台湾・韓国)の合計6名でした。

農学部私費外国人特別選考試験

平成11年度私費外国人留学生特別選考試験は3月1日に行われ、2名の受験者があり、生物機能科学科と生産環境科学科に合格されました。

外国人客員部門特別公開セミナー

平成10年度12月18日、農学部小会議室において、外国人客員教官の、カリフォルニア大学デービス校、Prof. Shu Geng による、教職員・学生の方々を対象にした特別公開セミナーが行われました。(参加者約40名)タイトルは「Global warming? Global dancing? What has it to do with supermarket? —地球温暖化・気候変動・食糧生産—」で、興味深い内容をわかりやすく御講演していただきました。この特別公開セミナーは今回が初めての試みでしたが、今後も継続して行う予定です。

外国人留学生（研究者）の博士号取得状況
（平成10年1月～12月）

当該1年間に京都大学農学研究科に博士論文を提出し、京大博（農）の学位を授与された外国人留学生（研究者）は35名です。取得者の名前と論文テーマは以下の通りです。

- 文 成 權**（食品工学専攻）
Utilization of hypoxia-responsive enhancer for production of recombinant proteins in animal cells
- 劉 利 東**（農芸化学専攻）
Structure, Function and Regulation of Glutamate Racemase
- 秋 東 園**（農芸化学専攻）
Enzymological Studies of Lipases from Psychrotrophic Bacteria
- Amaury Martin Arzate Fernandez**（農学専攻）
In vitro Culture for Propagation and Breeding of Lily (*Lilium* spp.)
- Untung Budi Santosa**（林学専攻）
Experimental Study on The Deposition and Erosion Processes in Sand Pockets
- Wawan Harmawan**（地域環境科学専攻）
Study on The Movable Lug Wheel
- Raynold Crispin Mfungahema**（熱帯農学専攻）
Studies on Significance of Population Potential in Land Use and Regional Planning
- Ahdin Gassa**（農林生物学専攻）
Studies on Chemicals Affecting Insect Behavior: Cuticular Hydrocarbons of Termites, Rice Plant Constituents, and Rotenoids from Yam Beam
- 潘 慶 華**（農学専攻）
Identification of New Genes Conferring Resistance to Blast (*Pyricularia grisea* Sacc.) in the Chinese and Indian Native Cultivars of Rice (*Oryza sativa* L.)
- Pamela Chavaz Crooker**（水産学専攻）
Studies on Extremely Heat-stable Proteases from the Hyperthermophilic Archaeon *Aeropyrum pernix* K1.
- Seca Gandaseca**（林学専攻）
Ergonomic Evaluations of Industrial Forest Plantation Work and Workers in East Kalimantan
- 申 美 仙**（水産学専攻）
Community Analysis of Obligately Oligotrophic Bacteria in Relation to Changes of Phytoplankton Communities in Lake Biwa (Japan) by a Molecular Approach
- S.M. Lutfor Rahman**（地域環境科学専攻）
Eco-Physiological Study On Tomato Drought Tolerance
- 田 興 軍**（地域環境科学専攻）
Decomposition of litter in a subalpine coniferous forest
- Md. Zakaria Hossain**（地域環境科学専攻）
New Approach to Modeling for Mechanical Behavior of Ferrocement and Its Application to Structural Design
- 金 成 擧**（生物資源経済学専攻）
韓国における食肉流通の現状と再編方向
- Eko Cahyono Sowiik**（熱帯農学専攻）
地方圏域における購買圏変化に関する実証的研究
- 呉 性 姫**（食品工学専攻）
Mechanisms of Glutamate Reception in Mouse Taste Cells
- 陳 曉 飛**（地域環境科学専攻）
土壌凍結・融解過程の計測とその解析に関する研究
- 陳 大 夫**（生物資源経済学専攻）
中国・市場経済化過程における木材需給および流通に関する研究

- Parnpai Rangsun**（畜産学専攻）
Study on The Establishment of Bovine Embryonic Stem Cells
- 鄭 忠 勳**（水産学専攻）
Phylogenetic Relationships of Skates (Chondrichthyes, Rajoidei) with Description of a New Genus
- 董 龍 英**（応用生物科学専攻）
Studies on Phosphoenolpyruvate Carboxylase in C₄ Plants: Molecular Structure, Function and Gene Expression
- 王 振**（農林経済学専攻）
中国における郷鎮企業と農村構造変化の経済分析
- Henry Young Lejukole**（畜産学専攻）
Genetic Improvement of Beef Cattle through Performance Test Procedure
- 金 武 燦**（水産学専攻）
赤潮原因藻 *Heterosigma akashiwo* (Raphidophyceae) を殺菌する細菌の分子生態学的研究
- 朴 清**（農芸化学専攻）
Enzymological Studies of Bacterial DL-2-Halo Acid Dehalogenases
- Aldo Gutierrez**（農芸化学専攻）
Role of Interdomain Loop of D-Amino Acid Aminotransferase
- 金 暎 美**（食品工学専攻）
Increase in swimming endurance capacity of mice by capsaicin
- 周 応 恒**（農林経済学専攻）
中国における農産物流通政策と流通構造の展開に関する研究
- 李 永 福**（農芸化学専攻）
Catalytic Mechanism of L-2-Haloacid Dehalogenase from *Pseudomonas* sp. YL
- 金 翰 泰**（農業工学専攻）
Fuzzy Rule-Based Relaxation Schemes in Groundwater Flow Computations
- 馬 靈 飛**（森林科学専攻）
竹セメントボードの製造技術の開発研究
- Basuki Sumawinata**（熱帯農学専攻）
Pedological Studies on The Reclamation of Brackish Sediments in South Kalimantan, Indonesia
- I Wayan Budiastira**（農業工学専攻）
Optical Methods for Quality Evaluation of Fruits



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