

1. PERSONAL INFORMATION

Full name: CHUNG TAN NGUYEN

Country of Citizenship: Vietnam

Professional position: Lecturer, Environmental Biotechnology Department

Place of work: Room Bio316, Building A1, the Nong Lam University

Address of work: Linh Trung Ward, Thu Duc Dist., Ho Chi Minh city

Phone: (+84) 903647171; E-mail: ntchung@hcmuaf.edu.vn

2. EDUCATION

Ph.D. Interdisciplinary Ecology with Concentration on Soil and Water Science (2011)

School of Natural Resources and Environment, University of Florida, USA

Dissertation: Effects of fire on soil nutrient pools in Pine Rockland forest ecosystem in South Florida

M.Sc. Environmental Sciences (2006)

Geography and Environmental Sciences, University of Colorado at Denver, USA

Non-thesis/major paper: Concentration on ecosystem and biodiversity conservation

B.Sc. Forest Ecology (2000)

Faculty of Forestry, Nong Lam University in Ho Chi Minh City, Vietnam

Thesis: Pathologies and diseases on *Eucalyptus* in the Southern part of Vietnam

Special training courses

- Geo-statistical Analysis of Environmental Data, University of Florida, USA (2010)
- Wetland Ecology and Conservation in the Lower Mekong River Basin, Vietnam: The training course was sponsored by the ASEAN Regional Center for Biodiversity Conservation with co-funding from the International Crane Foundation. The University of Natural Sciences in Ho Chi Minh City and Can Tho University of Vietnam co-hosted this first training course. The course combined in-class lectures covering various topics of wetland ecology and management with field exercises that exposed participants to real-world wetland management issues and allowed participants to practice wetland research methods learned in class as well as to enhance their analytical and presentation skills (1-26 of June, 2003)
- Biodiversity Conservation, Vietnam (2002)

3. TEACHING AND INTERESTS

a. Courses Teaching

- Environmental Bioindicator
- English for Environmental Biotech Professionals
- Natural Resources Management
- Climate Changes

b. Research Interests

- Wastewater treatment by wetlands
- Biogeochemistry and nutrient modeling in wetlands
- Adaptability to climate change: effects of C sequestration and CH₄ emission in mangroves
- Blue carbon storage, mangrove restoration, and wetland biodiversity and conservation

4. EMPLOYMENT

- 2/2014 – present: Lecturer**, Environmental Biotech Department – Nong Lam University
- 4/2013 – 1/2014 : Lecturer**, Department of Silviculture – Nong Lam University, Vietnam
- 10/2011 – 3/2013: Postdoctoral researcher**, the South Florida Water Management District, USA
- 8/2007 – 9/2011 : Graduate Research Fellow**, Soil and Water Science Department, Uni. of Florida, USA
- 2001 – 7/2007 : Lecturer**, Department of Silviculture, Nong Lam University, Vietnam
- 2001 – 2004 : Coordinator Assistant**, Project of Wetland management in the Mekong Delta
- 2000 – 2001 : Technician**, Information Technology Center, Nong Lam University, Vietnam

5. PROFESSIONAL EXPERIENCES

- 2/2014 – 8/2014: Consultant**, Ho Chi Minh People Committee's Environmental Sanitation Project
- 10/2011 – 3/2013: Postdoctoral Researcher Fellow**, a joint project between the Ohio State University and South Florida Water Management District: Nutrient removal efficacy of six native wetland plants in the Florida Everglades, USA. Understanding of main pathways (sediments, macrophyte, and water) induced removal of P and N in the wetlands
- Experienced in soil/sediment and water sample collection and analysis, and experienced in water quality assessment
 - Experienced in determining above- & below-ground decomposition rates for wetlands
 - Experienced with measurements of reduction-oxidation (Redox) potential, dissolved oxygen (DO), diurnal DO, and standing biomass in wetlands
 - Experienced with use of YSI to measure pH, conductivity, DO in water column, and HOBO to measure temperature and light intensity in water column and sediment
 - Experienced with calculations of gross primary productivity (GPP) and net primary productivity (NPP) for wetland vegetation from diurnal DO
 - Experienced in setting up a water inflow system for mesocosm experiment
- 8/2007 –10/2011: Graduate Research Fellow**, University of Florida, USA
- a) Doctoral research (2007-2011)
- Determining P limitation in the Pine Rockland forest ecosystem using methods of critical value and diagnosis and recommendation integrated system (DRIS) index
 - Evaluating effects of prescribed fire on availability of P and nutrient elements in calcareous soils in the Pine Rockland
 - Predicting P species before and after a fire using MINTEQA2's Geochemical model
 - Developing a regression model for predicting long effects of fire on P availability basing

soil moisture, fire temperature, and time after a fire

b) Participated and assisted in the following research projects

- USAID funded project - Soil testing and fertilizer recommendation for Haiti: Preparing and analyzing soil samples (2010)
- Master student research - Evaluating quick testing methods for controlled release fertilizers: Helping the student to design an experiment and analyze samples (2010)
- Miccosukee Tribe of Indians funded project - Miccosukee water quality monitoring: Collecting water samples and measuring phosphorus (2009 -2010)
- Everglades National Park funded project- Characterization of Natural, Disturbed and Newly Formed Soils in the Hole-in-the-Donut: soil collection and bulk density (2009)
- USGS funded project- Soil chemistry changes affected by pine trees and exotic plants in native and disturbed pine Rockland: soil collection and analysis (2008-2009)
- South Florida Water Management District funded project- Influence of prescribed fire on phosphorus speciation in ash and redistribution in water and sediment: Collecting and analyze water samples and residual-ash samples (2008)

2001 – 2004: Research assistant, Nong Lam University, Vietnam

- a) Identifying and classifying tree taxonomy of the tropical rain forests in the Southern part of Vietnam, the project was funded from the Vietnamese Government (2001-2003)
- b) Participating in activities of the Wetland Management project in the lower Mekong river Basin. This project included Cambodia, Lao, Thailand, and Vietnam and was funded by WorldFish Center (2001-2004).

Special Skills:

a) **Chemical Analysis**

- Experienced with soil testing for pH, Electrical Conductivity (EC), total P (TP), total N (TN), total C (TC), PO₄-P, NH₄-N, NO₃-N, and other macro-and micro-nutrients
- Experienced with soil nutrient analysis for ortho-phosphate, total phosphorus, total organic carbon (TOC), nitrite, and nitrate
- Experienced with nutrient analyses in water column, including TP, TDP, DIP, DOP, TKN, TDKN, TOC, DOC, NH₄, NO_x, Ca, Mg, Fe, Mn, SO₄
- Experienced with soil/sediment phosphorus fractionation
- Experienced with plant-tissue analysis for total content of nutrients

b) **Operation of instruments**

- Dual channel pH/Conductivity meter (Fisher Scientific)
- Carbon-Nitrogen-Sulfur (CNS) auto-analyzer (Vario Max, Elementar)
- UV-Spectrophotometer (DU 640, Beckman)
- Discrete auto-analyzer (AQ2, Seal Analytical)
- Atomic Absorption Spectrophotometer (AA-6300, Shimadzu Scientist Instruments)
- Muffle Furnace and Liquid TOC auto-analyzer (Elementar)

c) Statistical Analysis, GIS, and Geostatistics

- SAS 9.2 for multiple regression analysis, ANOVA analysis of different experimental designs (split-plot design, factorial design, and repeated measures), and multivariate analysis (principal components and canonical correlation)
- Different methods (Tukey's HSD, Scheffe's multiple comparison, and Duncan's multiple-range test) for a multiple comparison
- ArcGIS 9.2 for constructing maps from different layers of geographic information
- S-GeMS (Standford Geostatistical Modeling System) for analyzing spatial variation, simulate a spatial distribution basing on geographic coordinates, and to create a map of spatial distribution for future interpolation

d) Computer Skills

- Proficiency on PowerPoint for presentation, Microsoft Excel for spreadsheet management, Microsoft Access for database management, Microsoft Project for project management, and SigmaPlot for charts and graphs
- TableCurve 2D and 3D for analysis of non-linear regression

6. MODELING EXPERIENCES

- Using the MINTEQA2's Geochemical model to simulate nutrient contents in soil solution
- Utilizing the OPUS model to simulate nutrient contents of a watershed
- S-GeMS (Standford Geostatistical Modeling System) for simulating a spatial distribution of environmental factors.

7. TEACHING EXPERIENCES

22 – 26 Feb., 2011 **Instructor**, the training course of “Water Quality Concept, Sampling and Analyses” for collecting water samples and using the Atomic Absorption Spectrophotometer to measure K, Fe, and Cu in water samples, Tropical Research and Education Center, University of Florida, Homestead, FL.

8. PROFESSIONAL WORKSHOPS

- The 4th VNU-HCM International Conference for Environment and Natural Resources: Green Growth, Climate Change, and Protection of Endangered Coastal Regions, 17-18 June 2014, Ho Chi Minh city, Vietnam
- Long-Term Monitoring of Mangrove Ecosystem's Response to Climate Change Workshop, 9-10 October 2013, Ho Chi Minh city, Vietnam
- International Workshop on Mangroves: Regional Networking Concerning the Evolution of Mangroves with Climate Change and Demographic increases, 3-5 Oct. 2013, HCM City, Vietnam
- The Vietnam SilvaCarbon program: National Workshop for Forest Inventory Information Need, from 6 – 7 August 2013 in Ha Noi – Vietnam
- The 2nd international DELTAS2013 Conference, from 19 – 23 May 2013 in HCM city, Vietnam

- The 4th International EcoSummit 2012: Ecological Sustainability - Restoring the Planet's Ecosystem Services, 30 September to 5 October 2012, in Columbus, Ohio – USA
- The 2011 ASA, CSSA and SSSA Annual International Meetings: Fundamental for Life - Soil, crop, and environmental sciences, from 16 -19 October 2011, in San Antonio, Texas – USA
- The 2010 ASA, CSSA and SSSA Annual International Meeting: Green revolution - Food energy, and environment security, from Oct. 31 to Nov. 3, 2010, in Long Beach, California – USA
- The Water Conservation Research Planning Workshop, from 29-30 November, 2007, at the Water Institute of University of Florida, Florida – USA
- The 2003 International Workshop on Legal and Institutional Framework, and Economic Valuation of Resources and Environment in the Mekong River Region: a Wetlands Approach, from 3 – 5 June 2003, Nha Trang city – Vietnam

9. PEERED-REVIEW AND PRESENTATIONS

- a) Nguyen, C.T. and Y.C. Li. Limitation and availability of soil nutrients in the South Florida slash pine forest after a fire (Submitted to the Canadian Journal of Forest Research, Manuscript ID: cjfr-2014-0325)
- b) Nguyen, C.T. and Y.C. Li. Effect of fire intensity on nutrient pools in a pine rockland forest as influenced by soil water content (Submitted to International Journal of Wildland Fire, Manuscript ID: WF14135)
- c) Darryl E. Marois, William J. Mitsch, Keunyea Song, Shili Miao, and Chung T. Nguyen. Estimating the importance of aquatic primary productivity for phosphorus retention in Florida Everglades mesocosms (Submitted to the Journal of Environmental Quality, JEQ-2014-07-0294-TR).
- d) Nguyen, C.T., Y.C. Li, R. Munoz-Carpena, J.R. Snyder, B. Schaffer, and N.B. Comerford. 2011. Solubility of phosphate minerals in the pine Rockland's calcareous soils after prescribed fire. The 2011 ASA, CSSA, and SSSA International Annual Meeting in San Antonio, TX. Presentation.
- e) Nguyen, C.T., Y.C. Li, R. Munoz-Carpena, J.R. Snyder, B. Schaffer, and N.B. Comerford. 2010. Dynamics of phosphorus in calcareous soils after a fire in the Pine Rockland ecosystem. Oct. 31-Nov. 4, 2010, Long Beach, CA. Presentation.
- f) Nguyen, C.T., R. Munoz-Carpena, Y.C. Li, and G. Kiker. 2008. Application of the OPUS model to simulate water and nutrient movement in South Africa's Umgeni river watershed. UF Water Institute Symposium: Sustainable Water Resources, University of Florida, FL. Presentation.
- g) Dang, H.T., G. An, H.H. Cai, T.T. Giang, and N.T. Chung. 2004. Wetlands in the Mekong Delta: An approach to Legal- Institutional Framework of Wetlands, the WorldFish Center. Final Report.

10. MANUSCRIPT REVIEWED

- a) Manuscript Number: ECOLENG-D-12-00176, Ecological Engineering Journal. 2012. Title of research paper: Effect of leaching on loss of soil phosphorus in different types of sand dune in Horqin Sandy Land, China.
- b) Manuscript Number: WETL-D-12-00729, Journal of Wetlands Ecology and Management. 2012. Title of research paper: Vegetation Composition in Degrading Wetland and its Ecological Implications? A Case Study of Momoge Wetland, Northeast of China.

- c) Manuscript Number: HORTTECH-02607, Journal of American Society for Horticultural Sciences. 2013. Controlled Release Urea and Soluble Nitrogen Fertilizers Affected Growth of *Allamanda cathartica* L. and Nitrate Leaching

11. LEADERSHIP SKILLS

- 2006 – 2007** **Assistant to President**, Nong Lam University, Vietnam
- 2003 – 2004** **Chairman**, the scientific research union of undergraduate students, Faculty of Forestry, Nong Lam University, Vietnam
- 2001 – 2004** **Assistant to Vice-President**, Nong Lam University, Vietnam
- 2001 – 2004** **Assistant to Coordinator**, the International Wetland project entitled “Economic evaluation and institutional/legal framework for wetlands in the lower Mekong river basin” which was carried out by Cambodia, Lao, Thailand, and Vietnam.

12. HONORS AND AWARDS

- | | | |
|--------------------|---------------|--|
| 2007 – 2013 | Fellowship | Vietnam Education Foundation (VEF) for studying in the Ph.D. program at the University of Florida, and Postdoctoral Fellow at the South Florida Water Management District, USA |
| 2007 – 2011 | Assistantship | School of Natural Resources and Environment, U. of Florida |
| 2004 - 2006 | Internship | Computer Laboratory and Library, University of Colorado, USA |
| 2004 – 2006 | Scholarship | The project # 322 of Vietnamese Government for studying the Master program at the University of Colorado at Denver |
| 2000 | Certificate | The second place in graduation, Nong Lam University, Vietnam |
| 1998 – 2000 | Scholarship | Hongkong Shanghai Bank Cooperation (HSBC bank), Vietnam |
| 1995 – 2000 | Scholarship | Annual scholarship for outstanding students, Vietnam |

13. MEMBERSHIP

- 2009 – 2011** **Member**, the Soil Science Society of American, USA

14. REFERENCES

Trinh Truong Giang, Ph.D.

Former Rector, Nong Lam University in HCMC
 Linh Trung Ward, Thu Duc District
 Ho Chi Minh City, Vietnam
 Cell phone: (+84) 913901039
 Email: ttgiang@hcmuaf.edu.vn

Assoc. Prof. Nguyen Phu Hoa, Ph.D.

Department of Aquaculture and Aquatic Resources Management
 Deputy Head, International Relation Office
 The Nong Lam University in Ho Chi Minh city
 Linh Trung Ward, Thu Duc District, Ho Chi Minh City, Viet Nam
 Office phone: (+84) 838966946; cell phone: (+84) 903946880

Email: phuhoa@hcmuaf.edu.vn

Shili Miao, Ph.D.

Senior Scientist, South Florida Water Management District

3301 Gun Club Road, FL 33406, USA

Tel: (561) 682-6638

Email: smiao@sfwmd.gov

Yuncong Li, Ph.D.

Professor, Department of Soil and Water Science

TREC, University of Florida

18905 SW 280th Street, Homestead, FL 33031, USA

Tel: (305) 246-7001 ext 282

Email: yunli@ufl.edu

William J. Mitsch, Ph.D.

Distinguished Professor, Director, Everglades Wetland Research Park

College of Arts and Sciences

Florida Gulf Coast University

4940 Bayshore Drive, Naples, FL 34112, USA

Tel: (239) 325-1365

Email wmitsch@fgcu.edu