

## Colin Albert Young, Ph.D.

P. O. Box 177, San Ignacio

Belize, Central America

011-501-629-7887

[cyoungbze@gmail.com](mailto:cyoungbze@gmail.com)

### **Current Position**

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Chief Executive Officer

Ministry of Energy, Science & Technology, and Public Utilities

Second Floor, Lands Building

Market Square

Belmopan, Cayo

Belize, Central America

Tel: +501-822-3336

Email: [ceo@estpu.gov.bz](mailto:ceo@estpu.gov.bz)

### **Education**

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<b>Ph.D. Ecology</b>	University of Connecticut, Storrs, CT	August 2005
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*Dissertation Topic:* “A comprehensive and quantitative assessment of Belize Creole ethnobotany: Implications for forest conservation.”

<b>M.S. Ecology</b>	University of Connecticut, Storrs, CT	August 2002
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<b>B.S. Biology/ Ethnobotany</b>	Marlboro College, Marlboro, VT <u>Suma cum laude</u>	May 2000
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*Thesis Topic:* “Concepts of disease and illness and ethnobotanically useful plants among Belizean Creoles in North-Central Belize.”

*Thesis Topic:* “A comprehensive literature review of Neotropical Dry Forests.”

### **Consultancies & Work Experience**

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- Program Director September 2010 - 2012  
National Protected Areas Secretariat  
Ministry of Natural Resources and the Environment  
Government of Belize

Belmopan, Belize

- “Energy Security” ...How valuable is our oil to the equation? Policy paper produced for Katalysts Institute for Public Policy and Research March, 2009
- Conducted Integrated Ecosystem Management in Indigenous Communities (PMIIE) consultancy to complete avian study in Elijio Panti National Park December 2007
- Completed (team) an assessment of the Monkey River Village erosion problem for Protected Areas Conservation Trust (PACT) August, 2007
- Comprehensive Review of National Protected Areas Policy and System Plan prepared for Katalysts Institute for Public Policy and Research March, 2008
- Completed over 15 Biodiversity Assessment for Ecoworks Consultancy Company
- Completed an Ethnographic Study on AIDS and migration in Benque Viejo Del Carmen, Cayo District, Belize, Central America;

## **Research Experience**

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- History of Protected Areas Designation and Co-management in Belize
- Belize's Ecosystems: Threats and Challenges to Conservation in Belize
- Protected Areas Management
- Co-Management as a Protected Area management strategy in Belize

### **Dissertation research in Belize**

May 2003-July 2004

- Completed an extensive quantitative assessment of Belizean Creole ethnobotany;
- Catalogued over 400 plant species of ethnobotanical importance to Belizean Creoles;
- Collected more than 1200 herbarium voucher specimens;
- Demarcated and conducted vegetation sampling on 27 plots (0.5 ha each) in lowland tropical rainforest of Belize;
- Ascertained the ecological importance of old growth and second growth forest to Belizean Creoles;
- Calculated species richness and diversity indices of useful species among forest types;
- Assessed the reliability of ethnobotanical data collected from collaborators;
- Investigated the efficacy of Creole medicinal plants using bioassays, laboratory tests, and extensive literature searches.

### **Undergraduate thesis research**

May 1999-August 1999

Kapulehu Dry Forest Reserve, Kona, Hawaii

- Experimented with various methods to control an invasive grass in the reserve;
- Assisted in the restoration of native flora in the reserve.

### **Undergraduate thesis research cont.**

December 1999-March 2000

Belize River Valley, Belize, Central America

- Documented 100 medicinal plants used by Belizean Creoles to treat over 40 categories of disease;
- Evaluated the concepts of disease among Belizean Creoles.

### **Research Assistant**

Scripps Institute of Oceanography, San Diego, CA. May 1998-August 1998

- Assisted in research to understand the regulation of bioluminescence in dinoflagellate *Lingulodinium polyedrum*.

### **Research Assistant**

May 1996-August 1996

Coral Caye Conservation, Belize, Central America

- Conducted extensive underwater sampling of coral diversity of Belize's barrier reef;
- Assisted in the evaluation of the effects of sedimentation of Belize's barrier reef.

### **Other Research Experience**

July, 2001

- Conducted an ethnographic study on AIDS and Migration in Benque Viejo Del Carmen, Cayo District, Belize.

### **Teaching Experience**

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**Faculty Associate (Ecosystems, ethno-botany and ecology)** September 2010-current

- Work with Institute of Sustainable International Studies (ISIS Belize) to provide lectures to faculty-led courses and to teach intensive two week courses.

**Ecosystem and Cultural Studies Field Instructor**

June-August 2008 - Current

- Led 6-week ecosystems and culture course throughout Belize

**Assistant Professor, Galen University**

August 2005-August 2010

**Director of Environmental Science Program**

- Developed and taught courses at both the undergraduate and graduate level in **sustainable development**, applications in sustainable development, environmental problems, ecology of a tropical forests, general ecology, plants and society, introduction to botany, **consultancy process**, and adventure and ecotourism.

**Field Instructor, School for International Training**

October 2006

- Conducted short and intensive courses in anthropological and ecological field methods for SIT students in Belize;

**Foundations of Biology Teaching Assistant**

August 2002-December 2003

University of Connecticut, Department of Ecology and Evolutionary Biology, Storrs, CT

- Administered and taught undergraduate students in the laboratory section of introductory biology
- Evaluated student performance in the laboratory section of the course

**Ecosystem and Cultural Studies Field Instructor**

June 2002-July 2002

San Francisco State University, School of Continuing Studies, San Francisco, CA

- Taught tropical ecology to American students in Belize
- Familiarized students with conservation initiatives in Belize
- Assessed major threats to Biodiversity in Belize

## Principles of Biology Teaching Assistant

August 2000-May 2001

University of Connecticut, Department of Ecology and Evolutionary Biology, Storrs, CT

- Administered and taught undergraduate students in the laboratory section of biology for majors
- Evaluated student performance in the laboratory section of the course

## Publications:

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**Young, Colin.** 2007. Belize's Ecosystems: Threats and Challenges to Conservation in Belize. *Tropical Conservation Science* 1(1):18-33. Available online:

[tropicalconservationscience.org](http://tropicalconservationscience.org)

Flomenhoff, Gary, Marion Cayetano and **Colin Young.** 2007. Black Gold, White Gold and the Gentrification of Belize. *Belizean Studies* 29(1):4-23.

**Young, Colin** and Horwich, Robert. 2007. The History of Protected Areas Designation, Co-management and Community Participation in Belize in *Taking Stock: Belize at 25 Years of Independence*, ed. B. Balboni and J. Palacio, Benque: Cubola Productions.

**Young, Colin.** 2004. *The Common Flora and Fauna of the Community Baboon Sanctuary*. Angelus Press. Belize City, Belize.

**Young, Colin.** 2001. An Ethnographic Study on AIDS and migration in Benque Viejo Del Carmen, Cayo District, Belize, Central America. University of Belize.

**Young, Colin.** 2000. Concepts of disease and illness and ethnobotanical uses of plants among Belizean Creoles in North-Central Belize. Undergraduate Thesis. Marlboro College, Marlboro, Vermont.

In prep **Young, Colin and Gregory Anderson.** 2005. The ethnobotanical importance of young secondary, old secondary and old growth forests to Belizean Creoles. *Biotropica* (intended journal).

In prep **Young, Colin and Gregory Anderson.** 2005. Screening of medicinal plants used by Belizean Creoles for the presence of bioactive compounds. *Journal of Ethnopharmacology* (intended journal).

In prep **Young, Colin and Gregory Anderson.** 2005. Ethnobotany of Belizean Creoles in Belize, Central America. *Economic Botany* (intended journal).

In prep **Young, Colin and Gregory Anderson.** 2005. Random versus ethnodirected approach to identify Creole medicinals: The use of brine shrimp bioassays to identify effective Creole medicinals. *Journal of Ethnopharmacology* (intended journal).

In prep **Young, Colin and Gregory Anderson.** 2005. Evaluation of reliability of ethnobotanical data: A repeat "walk in the woods" in Belizean lowland forests. *Economic Botany* (intended journal).

## Honors and Distinctions:

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Co-chair Mesoamerican Society for Conservation Biology

October 2006

Graduate Assistantship, University of Connecticut

August 2005-December 2005

President, Graduate Student Senate, University of Connecticut

August 2001-August 2002

Multicultural Fellowship, University of Connecticut

August 2000-December 2005

American Institute of Biological Sciences Poster Award

October 2001

Bamford Award for Botany, University of Connecticut

May 2001-May 2003

National Forest Service Internship in Hawaii	May 1999-July 1999
MacArthur Scholarship, Marlboro College	May 1999
Amemiya Scholarship, Marlboro College	August 1997-May 2000
Elected President of Student Government, University College of Belize	May 1997
Outstanding Student of the Year Award, University College of Belize	April 1997
Leadership Award, Belize Defense Force	August 1995
Jungle Survival Training	
Caribbean Examination Council award for Academic Excellence (7 awards)	May 1995

### **Lectures and Presentations:**

- Young, Colin. 2009. Energy Security: How Valuable is Oil to the Equation. Princess Hotel and Casino.**
- Young, Colin. 2008. Belize Ecosystems: Threats and Challenges to conservation in Belize.** University of Arkansas.
- Young, Colin. 2008. Research Gaps in Belize's Protected Areas System.** Arkansas State University .
- Young, Colin. 2006. Ethnobotany and forest ecology: Implications for forest conservation.** University of Belize.
- Young, Colin. 2005. Species richness and diversity patterns of ethnobotanically useful species in Belizean lowland, tropical rainforest.** University of Calgary, Canada.
- Young, Colin. 2005. The relative importance of young secondary, old secondary and old growth forests to Belizean Creoles. Implications for forest conservation.** University of Indianapolis, Indiana. U.S.A.
- Young, Colin. 2005. A comprehensive and quantitative assessment of Belizean Creole ethnobotany: Implications for forest conservation.** Dissertation defense. University of Connecticut.
- Young, Colin. 2005. Stinking toe, scorpion tail, and snake root: Belizean Creole Ethnobotany and its Implications for Forest Conservation.** Museum of Natural History, University of Connecticut.
- Young, Colin. 2002. Belize and Conservation: Community conservation as a lasting conservation strategy.** Marlboro College. Marlboro, Vermont.
- Young, Colin. 2002. Community Participation: A Lasting model for Conservation?** Windham High School, Willimantic, Connecticut.
- Young, Colin. 2001. Ethnobotanical uses of plants among Creoles of north central Belize. Ecology and Evolutionary Biology 11<sup>th</sup> Graduate student symposium.** University of Connecticut.
- Young, Colin. 2000. Community Conservation: The Community Baboon Sanctuary (CBS) as a working model for conservation.** Museum of Natural History, Raleigh, North Carolina.
- Young, Colin. 2000. The Ethnobotany of the Creoles of north central Belize, Marlboro College.**
- Young, Colin. 2001. Pharmacopoeia of the Belizean Creoles, Museum of Natural History, University of Connecticut.**
- Young, Colin. 2001. Belizean Creole Ethnobotany. Poster presented at the American**

**Grants:**

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Demi Fellowship, University of Connecticut	May 2005
Organization of American States Doctoral Fellowship	August 2002- August 2004
Doctoral Dissertation Fellowship, University of Connecticut	August 2003
Garden Club of America Anne Chatham Fellowship in Medicinal Botany	January 2002
Ronald Bamford Endowment to the Department of Ecology and Evolutionary Biology, University of Connecticut	May 2001-2002
United Nations Development Program Small Grants Program/ Global Environment Facility	May 2000

**Memberships:**

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Mesoamerican Society for Conservation Biology  
The Society for Economic Botany  
American Society of Plant Taxonomists  
American Institute of Biological Sciences  
Torrey Botanical Club  
Society of Conservation Biology  
The Association for Tropical Biology and Conservation

**Boards of Directors**

Member of National Environmental Appraisal Committee (NEAC)	June, 2009- Current
Project Steering Committee/UNDP/SGP	Nov, 2008 - Current
Katalyst Institute for Public Policy and Research	June 2006 – Dec. 2008
President, Friends for Conservation and Development (FCD)	Nov, 2007 - Current

**Selected University Service:**

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Director, Environmental Science Program, Galen University, Belize  
Chair of sub-committee on the Rationalization of Programs for Higher Education Conference,  
University of Belize and Galen University  
Search Committee, Vice Provost for Research & Graduate Education and Dean, Graduate School  
University of Connecticut;  
University Senator, University of Connecticut;  
University Senate, Faculty Standards Committee, University of Connecticut;  
Chancellors committee on Leadership and Programming, University of Connecticut;  
Vice Chancellor's Student Leadership Committee, University of Connecticut;  
Chancellor's Library Advisory Committee, University of Connecticut.

**Selected Voluntary Service**

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Organizing Committee for 25<sup>th</sup> Annual Society of Ethnobiology Conference "Art and Soul:  
Celebrating Indigenous Artisans" (March 6-9, 2002), University of Connecticut.  
Consultant, Community Baboon Sanctuary, Belize

Cockscomb Basin Wildlife Sanctuary, Belize

## **Graduate Students**

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Percy Lewis completed an MBA in Sustainable Development at Galen University

Travis Steffens, University of Calgary, Canada. In country advisor

Kelley Witkowski

Jill Mackenzie

Allen Genus

Katherine Ghantous

Glen Enriquez

## **Other**

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- In 1990, a children's book entitled "Colin en de Brulapen" or "Colin and the Monkeys" was published in three languages that chronicled my efforts to protect the endangered Black Howler Monkeys (*A. pigra*). In July 2006, the Spanish edition "Colin Y Los Monos" was launched in Guatemala City.
- Certified Belize Red Cross First Aid/CPR Instructor March 2007 – Current
- BSAC Certified SCUBA open-water diver May 1995
- CAST Certified to conduct Environmental Walk Through (EWT) Assessment on behalf of Belize Tourism Board and Belize Hotel Association February 2004