

1. Prior to completion of the ATP, proposers must consult with the Vice Chancellor for Academic Affairs (VCAA) regarding the interest in proposing a new degree/certificate
2. School/College and Department/Unit: College of Arts and Sciences (CAS), Tropical Conservation Biology and Environmental Sciences (TCBES)
3. Committee: Drs. Donald Price (TCBES Director), Jason Adolf (Marine Science), Norman Arancon (Agriculture), Patrick Hart (Biology), William Mautz (Biology), Jon Price (Geography), Misaki Takabayashi (Marine Science), and Terrilani Chong and Herbert Poepoe.
4. Degree or Proposed: Ph.D. in Tropical Conservation Biology and Environmental Sciences

5. Describe the need for program:

a. Program description:

This program will provide graduate training in Conservation Biology and Environmental Sciences for students with a Masters in Science or Baccalaureate Degree, and those currently working in the field. Studies will culminate with the award of a Ph.D. in Tropical Conservation Biology and Environmental Sciences. The program will use the extraordinary intellectual, biological, physical and cultural diversity on Hawai'i Island, and within the State and Pacific Region, as a focus of investigation and study. It will prepare students for senior-level positions in academia, education, government, industry and related fields.

Program objectives are to:

- Provide a meaningful and significant course of study in conservation biology and environmental science focused on Hawai'i and the Pacific region.
- Enhance academic rigor and scholarship within the CAS and CAFNRM and Federal and State Agencies.
- Leverage the research expertise of CAS and CAFNRM faculty and associated Federal and State Agency personnel.
- Advance the fields of Conservation Biology and Environmental Sciences in Hawai'i and the Pacific region, with an emphasis on scientific issues relating to the tropics.
- Foster knowledge of current trends and issues in Conservation Biology and Environmental Sciences including basic and applied research and natural resource issues, with an emphasis on scientific issues relating to the tropics.
- Provide participants with experiences in conceptual and technical research areas in the Conservation Biology and Environmental Sciences, including but not limited to: Ecology, Evolutionary Genetics, Metabolomics, Spatial Data Analyses, Physiological Ecology, Behavioral Ecology, Ecosystem Sciences, Oceanography, and Environmental Microbiology.
- Promote research and scholarly activities that will enable participants to successfully pursue a career in Conservation Biology and Environmental Sciences.
- Offer new career preparation options to students within the UH System, Statewide and throughout the Pacific Basin.
- Develop methods and/or innovations in analytical processes and technologies relevant to Conservation Biology and Environmental Sciences, with an emphasis on scientific issues relating to the tropics.
- Create rigorous, relevant opportunities for under-represented students in the sciences (e.g. Native Hawaiians, Pacific Islanders, and Filipinos).

Learning Objectives: Graduate Students within the program will:

- Develop skills in Conservation Biology and Environmental Sciences.
- Perform basic and applied scientific research that will advance knowledge in the interdisciplinary field of Conservation Biology and Environmental Sciences.
- Be educated and trained to use advanced technological equipment and rigorous techniques in order to perform quantitative analyses and interpret complex data.
- Present research findings at local, national and international forums.

- Interpret and critique professional scientific literature.
- Undertake an original individual research project leading to a Ph.D. Dissertation.
- Pass qualifying exams by the end of their second academic year.
- Successfully defend their Dissertations.

The creation of a graduate program offering the Ph.D. degree will build on the success of the Masters in Science Program in the UH Hilo TCBES program. A Ph.D. program in TCBES will open many doors for our students and faculty. The Ph.D. degree in Conservation Biology and Environmental Science is the recognized degree necessary to assure graduates are competitive as scientists able to develop, lead, and direct independent research in academic, educational, private industry, and government settings locally, nationally and internationally. These future scientists will greatly enhance the intellectual depth and breadth of the campus community through mentoring undergraduate students, and acting as teaching assistants in laboratory courses, seminars, discussion groups and campus lectures. The diverse scientific perspectives of the graduate students from a variety of backgrounds will contribute to the advancement of scholarship. This in turn will lead to an increase in the exposure of UH Hilo's programs to the scientific community and potential sources of funding. As the program develops, the University of Hawai'i will increasingly be recognized as a center of excellence in Conservation Biology and Environmental Science in the Pacific Basin.

The program's location in Hilo will serve to make it accessible to students from Hawai'i, as well as those from other nations in the Pacific, who are considered under-represented minorities in the scientific community. A high priority will be to ensure that students from Hawai'i and those from groups underrepresented in the sciences, e.g. Native Hawaiian, Pacific Islander, Filipino, will obtain the Ph.D. degree and become scientific leaders and policy makers in the next generation in Hawai'i and the Pacific Region. As the program is initiated there will be significant interest from local, national and international students who will want to participate in such a distinctive program based in a truly exceptional location and offering unique opportunities. Currently, approximately 15-20 students are admitted into the M.S. in TCBES annually. Once the Ph.D. program begins, we anticipate we will have an initial cohort of 5 entering Ph.D. and 10-15 M.S. students per year leading to a maximum of 20-25 Ph.D. and 30-40 M.S. students in the program as a whole, within 5 years.

The proposed graduate program is consistent with the primary mission of UH Hilo as outlined in the 2011-2015 Strategic Plan:

Goal 1: Provide learning experiences and support to prepare students to thrive, compete, innovate and lead in their professional and personal lives – The TCBES program supports UH Hilo's primary mission of providing an excellent education for undergraduate and graduate students. TCBES enriches existing UH Hilo undergraduate programs with supplementary courses and activities. Honors students and advanced undergraduates participate in a variety of activities with the current graduate program. TCBES makes it possible for undergraduates in the biological and environmental sciences to work with graduate students to gain valuable field and laboratory experience. These opportunities for undergraduates are critical to their success in obtaining jobs or continuing with graduate education and will be expanded and deepened by the addition of this Ph.D. program. The M.S. program in TCBES has over ninety graduates who have found employment in Federal and State agencies in Hawai'i and on the mainland. To date, over 20 students have enrolled in Ph.D. programs at other institutions.

Goal 2: Inspire excellence in teaching, research and collaboration – A majority of research and scholarly work on Hawai'i Island is performed by faculty and students from off-island universities. The Ph.D. program in TCBES will expand the breadth of environmental investigations taking place on Hawai'i Island and performed by scientists local to the island. The Ph.D. students will gain high-level training in environmental scientific research and monitoring and take advantage of the world-class natural laboratory within which UH Hilo resides. Interactions and collaborations with federal, state and non-government agencies will augment the program via access to additional research opportunities, facilities and expertise.

Goal 3: *Foster a vibrant and sustainable environment within which to study, work and live* – The Ph.D. program in TCBES will enhance the quality of life on Hawai'i Island, the State of Hawai'i and the Pacific region through studies related to the conservation biology and environmental sciences of the region. The Ph.D. program will also enhance the educational and research environment of undergraduate students who will work alongside the Ph.D. students. The faculty at UH Hilo and the Federal and State agency partners will also benefit through the increased scholarship associated with the Ph.D. program. The presence of this program will act as a recruiting enhancement with respect to faculty hires at UH Hilo.

Goal 4: *Cultivate, sustain and reflect a diverse, multicultural university that is rooted in the indigenous history of Hawai'i* – A continuing goal of the TCBES program is to recruit and engage students from the Pacific region with special emphasis on students of Native Hawaiian heritage and from other Pacific Island communities. The biological and environmental challenges in the Pacific require a diversity of approaches. The engagement of people from the local communities in the Pacific will be important to promote the sustainability of the biological and environmental resources. As the program produces graduates, we hope to be able to recruit from its ranks for our faculty and research staff. This will add a dimension to our faculty and staff of role models with a strong local connection and deep understanding of the culture and history of Hawai'i.

Goal 5: *Strengthen UH Hilo's impact on the community, island and state of Hawai'i through responsive higher education, community partnerships, and knowledge and technology transfer* – The TCBES program is addressing the conservation and environmental challenges in Hawai'i and the Pacific region by providing recent baccalaureate graduates and those already working in pertinent careers with graduate training at the M.S. and Ph.D. level that will enable their careers as conservation and environmental scientists and managers. To foster this career development as environmental scientists these students will receive mentoring and education from Federal, State and Non-governmental agencies on the needs of the island and state. Employees from Hawai'i County, Hawai'i State and local branches of federal environmental and resource management agencies will be recruited into the program.

Goal 6: *Facilitate organizational excellence through continuous innovation, responsible resource development, and effective communication* – The Ph.D. program in TCBES will promote high quality research projects focusing on critical environmental issues in Hawai'i. These projects will augment the research programs of UH Hilo faculty as well as TCBES-associated state and federal researchers. TCBES students will present papers at numerous scientific meetings in Hawai'i, on the U.S. mainland, and internationally, and publish in peer-reviewed scientific journals.

b. Can identified need be met by existing UH program(s)? There are no similar degrees offered within the UH System. The Ph.D. in TCBES program will build on the M.S. in TCBES. The students entering with a B.S. degree enroll in the M.S. course of study. There will be 4-6 additional courses developed for the Ph.D. program. In addition, students will be able to enroll in courses at UH Manoa, courses and workshops offered at other universities for additional advanced studies.

6. Planning the new program:

a) Planning period:

1) Duration: 12-18 months from the date of this submission.

2) Activities to be undertaken during the planning phase

- Develop curricula and courses beyond the current M.S. in TCBES
- Conduct outreach to existing faculty and departments to ensure compatibility with undergraduate programs
- Establish workload and joint appointments of Faculty with TCBES
- Enhance partnership with Federal, State and non-governmental agencies
- Enhance recruitment procedures to attract underrepresented students in the sciences (e.g. Native Hawaiian

and Pacific Islander)

- Develop suggested Dissertation topics beyond the M.S. Thesis topics
- Continue to seek short- to medium-term funding and establish procedures to maintain long-term program funding
- Assess needs-based outcomes
- Enhance admissions process for Ph.D. student applicants
- Develop a grading system for didactic and research credits
- Establish articulation of M.S. students into the Ph.D. program
- Create procedures for Dissertation defense
- Examine library and student services resources
- Establish/Create UH Hilo Catalogue entries
- Create and submit proposal to UH Administration and WASC

3) Anticipated submission date of program proposal: 12-18 months after authorization is obtained.

4) Workload/budget implications during planning period: No resources will be required beyond those already provided to TCBES via the M.S. Program. The planning will be undertaken mainly by a working group of faculty and staff: Drs. Donald Price (TCBES Director), Jason Adolf (Marine Science), Norman Arancon (Agriculture), Patrick Hart (Biology), William Mautz (Biology), Jon Price (Geography), Misaki Takabayashi (Marine Science), and Terrilani Chong and Herbert Poepoe. Several collaborating Federal and State agency members will join the working group.

5) How program will be economically sustainable: See budget and justification

6) Impact proposed program may have on accreditation

The Ph.D. program should have a positive impact on accreditation at UH Hilo as this program builds on the M.S. program in TCBES.

7) How program will fit within campus and/or system organizational structure: The Ph.D. in TCBES program will be an interdisciplinary program along with the M.S. program in TCBES. The TCBES program will report to the Vice Chancellor for Academic Affairs.

b) Description of resources required:

1) Faculty (existing and new FTEs): Two additional faculty will be required in either CAS or CAFNRM, in addition to those already participating in the MS TCBES program, to achieve the breadth needed to offer a robust doctoral program. These faculty will be recruited by strategic replacement of faculty who leave UH Hilo by retirement and resignation, as part of our annual campus SWOT (Strength, Weaknesses, Opportunities and Threat) analysis. Currently there are 27 UH Hilo faculty who have mentored TCBES M.S. students. We project that several academic areas will need to be enhanced including bioinformatics/ biostatistics, eco/geo/biological modeling, genetics, environmental and community studies. These new faculty will permit the development and teaching of new courses in the Ph.D. program and permit existing faculty to offer additional courses/seminars in the Ph.D. program. We anticipate each faculty member will teach a TCBES course at least every two years and this will permit a sufficient number of courses beyond the M.S. program to be offered to the Ph.D. and M.S. students. We envision that some of the courses in the current M.S. program will also be available to Ph.D. students.

2) Library resources: The UH Hilo Library has conducted a preliminary analysis of needs for the TCBES program. The budgeted amount will provide for monographs, journals, and online databases, with a 7% annual increase for ongoing subscriptions.

- 3) Physical resources: Currently, each department has space for student & faculty research. Core lab facilities (Genetics, Analytical Chemistry and Spatial Data Analysis and Visualization Labs) and shared-use vehicles provide a common mechanism around which faculty and students conduct research. Pacific Aquaculture and Coastal Resource Center and the university farm provide research and lab facilities for graduate students. Additional laboratory/bench space, access to field research sites (terrestrial, aquatic, marine), office space for new faculty and dedicated space for students to conduct research, study, meet, and write has recently become available for the TCBES program following the renovation of the Wentworth building and the new Science and Technology building. In addition, the Federal and State Agencies (e.g. USDA-ARS and USDA-Forest Service) have space available for students who are co-advised with the agency personnel.
 - 4) Other resources required (staff, graduate assistantships, etc.) Administrative/fiscal assistance is required to ensure the program's compliance with state and federal regulations and efficient operation among the expected 20-25 Ph.D. students, 30 faculty, 50 certified faculty members of the program.
- c) *Five-Year Business Plan.* Provide a five-year projected budget for the program that answers the following questions and includes a completed Mini Cost Revenue Template:
- 1) What will be the annual costs to implement the program? See Cost Template and Justification.
 - 2) What will be the projected enrollment and estimated tuition revenue? Projected enrollment presumes 5 PhD students enrolled in year one, 10 in year two, 15 in year three, 20 in year four, and 25 in year five. Tuition: in AY 2014-2015, graduate will be \$417/cr for residents and \$956/cr for non-residents. Presumed increases will be ~1.06 of previous year's level. Based on 12 credits/year each PhD student, the estimated tuition per year runs from \$41,220 in AY2014-15 to \$275,808 in AY 2019-2020.
 - 3) How will the program be funded? The program will be funded through existing and/or replacement faculty salaries and administrative support provided by the University of Hawai'i at Hilo. In addition, basic materials and supplies and library support will be provided by the University of Hawai'i at Hilo as a normal cost of operating a graduate program. The TCBES program will continue to seek program-level grants (e.g. NSF CREST, NSF IGERT, NSR PIRE, NSF CAREER, others) as well as support from non-governmental agencies. TCBES faculty will apply for extramural research grants to support their research and students. The core research facilities generate ~\$90,000 per year for their operating budgets that is estimated to increase to \$100,000 by 2017.
 - 4) Does the current or proposed budget (Department/College/Campus) include funds or a request for funds for the proposed program? Please provide details. The proposed budget includes funds for general operations (\$20,000 in FY 2013 to \$37,000 in FY 2017 - see budget and justification).
 - 5) Given a "flat budget" situation or if anticipated enrollment does not materialize, how will the proposed program be funded? No new funding is requested to compensate faculty mentoring graduate students and teaching graduate courses; rather, faculty participants will be drawn from existing TCBES ranks and strategic replacement of faculty who leave UH Hilo by retirement or resignation, as part of our annual campus SWOT analysis. Materials and supplies will be funded through the tuition generated from the students enrolled in the program. Library resources will be funded through the general campus needs for access to electronic library resources.

ENTER VALUES IN HIGHLIGHTED CELLS ONLY						
ACADEMIC YEAR 2014	14-15	15-16	16-17	17-18	18-19	19-20
PROGRAM COSTS						
Faculty w/o fringe	12,000	24,000	60,000	72,000	120,000	120,000
Other personnel costs w/o fringe*	23,248	61,441	101,402	128,386	131,345	134,475
Unique Program Costs	20,000	29,000	31,000	33,000	35,000	37,000
TOTAL Direct and Incremental Expenses:	55,248	114,441	192,402	233,386	286,345	291,475
REVENUES						
Projected Enrollment	5	10	15	20	25	25
# of Courses	2	4	6	6	6	6
# of Credits/student/year	12	12	12	12	12	12
Annual SSH	60	120	180	240	300	300
Tuition Rate/Credit	687	728	772	818	867	919
Total Revenue from Tuition (SSH*Tuition)	41,220	87,360	138,944	196,320	260,197	275,808

Faculty costs: Lecturer to cover 1 course/semester in 2014-15; 2 courses/semester in 2015-16; one faculty to cover 3 courses/semester in 2016-17; one faculty to cover 3 courses/semester plus one lecturer to cover 1 course/semester in 2017-18; 2 faculty to cover 3 courses per semester in 2018-19 and 2019-20. The revenue to cover these costs will come from reinvestment of graduate student tuition collected back into the program.

*Executive Assistant position (1/4 time in 2015-16 (\$14,057), 1/2 time in 2016-17 and thereafter (\$28,958; \$29,826; \$30,721; \$31,643) with a 3% raise per year.

*Graduate Assistant Positions - 1 in 2014-15; 2 in 2015-16; 3 in 2016-17; 4 in 2017-18 and thereafter at \$16,000 stipend plus \$7,248 tuition in 2013-14 with a 3% increase per year. The tuition assumes 50% in-state students and 50% out-of-state students.

- Four Graduate Assistants will eventually teach 8 3-credit course equivalents per year and the two new faculty will eventually teach 10 3-credit course equivalents per year. This will provide for faculty reassignment to advise and mentor the Ph.D. students. The revenue to cover these costs will come from reinvestment of graduate student tuition collected back into the program.

** This figure is based on availability of extramural funding generated by TCBES faculty. Actual amount of extramural funding garnered by TCBES faculty during 2008-2012 is in the attached appendix.

7. Describe the impact on current courses or programs.

This Ph.D. program builds on the courses already offered in the M.S. program. There will be 4-6 additional courses offered at Ph.D.-level.

8. If this program is multidisciplinary, provide evidence of commitment for support from the colleges, departments, programs, and/or individuals expected to participate.

The Ph.D. program in TCBES builds on the M.S. program that is already multidisciplinary with several departments in CAS and with CAFNRM. The faculty in these colleges and departments already teach courses in the M.S. program and mentor graduate students. This multidisciplinary aspect of the program will continue in the Ph.D. program.

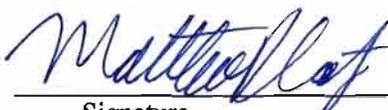
The ATP has completed the campus approval process prior to review by Council of Chief Academic Officers

Reviewed by:

Campus Chief Academic Officer:

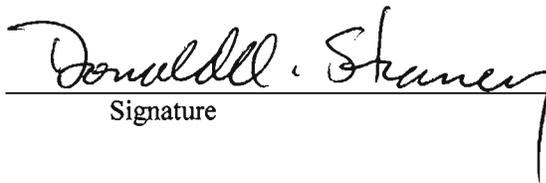
X Recommend

Comments:

	Matthew Platz	5/2/13
Signature	Print Name	Date

Chancellor: Approved Disapproved

Comments:

		7 May 13
Signature	Print Name	Date

Council of Chief Academic Officers (Systemwide Consultation):

Comments:

_____	_____
Print Name	Signature
	Date

(A copy of the signed document is provided to the Office of the Executive Vice President of Academic Affairs/Provost)

Faculty Extramural Funding Study: 2001-May 2012,

ATP for Ph.D. in TCBES: 04/04/2013

TCBES Faculty Extramural Funding 2008-MAY 2012				
Lname	Fname	Department	email	Funding 2008-2012
Adolf	Jason	Marine Science	jadolf@hawaii.edu	\$ 408,633
Arancon	Norman	Agriculture	normanq@hawaii.edu	\$ -
Awaya	Jonathan	Biology	awayaj@hawaii.edu	\$ 50,000
Beets	Jim	Marine Science	beets@hawaii.edu	\$ 414,820
Besio	Kathryn	Anthropology	besio@hawaii.edu	\$ -
Brown	Daniel	Anthropology	dbrown@hawaii.edu	\$ 40,500
Chang	Leng Chee	Pharmacy	lengchee@hawaii.edu	\$ 52,500
Colbert	Steven	Marine Science	colberts@hawaii.edu	\$ -
Cusick	John	Biology	cusick43@hawaii.edu	\$ 30,170
Cuttriss	Abbey	Biology	abbyc@hawaii.edu	\$ -
Davis	Jeffrey Sasha		jeffreyd@hawaii.edu	\$ -
Delparte	Donna	Geography	delparte@hawaii.edu	\$ 105,000
deMaintenon	Marta	Marine Science	demainte@hawaii.edu	\$ -
Hart	Patrick	Biology	pjhart@hawaii.edu	\$ 463,557
Haws	Maria	Aquaculture	haws@aol.com	\$ 1,206,828
Hopkins	Kevin	Aquaculture	hopkins@hawaii.edu	\$ 384,424
Jarvi	Susan	Biology	jarvi@hawaii.edu	\$ -
Juvik	James	Geography	jjuvik@hawaii.edu	\$ 94,000
Juvik	Sonia	Geography	juvik@hawaii.edu	\$ 974,369
Kho	Ernest	Chemistry	ekho@hawaii.edu	\$ -
Li	Yiqing	Forestry	yiqing@hawaii.edu	\$ -
Lundblad	Steven	Geology	slundbla@hawaii.edu	\$ 142,785
Mathews	Bruce	Soil Science & Agronomy	bmathews@hawaii.edu	\$ 5,000
Mautz	William	Biology	mautz@hawaii.edu	\$ 22,397
McDermid	Karla	Marine Science	mcdermid@hawaii.edu	\$ -
Ortega	Armando Garcia		agarciao@hawaii.edu	\$ -
Michaud	Jon-Pierre	Chemistry	jonpierr@hawaii.edu	\$ 85,000
Michaud	Jene	Geology	jene@hawaii.edu	\$ -
Mills	Peter	Anthropology	millsp@hawaii.edu	\$ 55,800
Muir	Cam	Biology	cmuir@hawaii.edu	\$ -
Ostertag	Rebecca	Biology	ostertag@hawaii.edu	\$ 1,365,132
Pack	Adam	Psychology & Biology	pack@hawaii.edu	\$ -
Price	Donald	Biology	donaldp@hawaii.edu	\$ 6,872,626
Price	Jonathan	Geography	jpprice@hawaii.edu	\$ -
Shintaku	Michael	Plant Pathology	shintaku@hawaii.edu	\$ 646,918
Stacy	Elizabeth	Biology	estacy@hawaii.edu	\$ 738,255
Takabayashi	Misaki	Marine Science	misakita@hawaii.edu	\$ -
Turner	Jason	Marine Science	jpturner@hawaii.edu	\$ 428,902
Wiegner	Tracy	Marine Science	wiegner@hawaii.edu	\$ -
TOTAL EXTRAMURAL \$ TO TCBES, 2008-MAY 2012:				\$ 14,587,616
AVERAGE AMOUNT OF EXTRAMURAL FUNDING PER YEAR EARNED BY TCBES:				\$ 3,302,832

Letters of Support

ATP for Ph.D. in TCBES: 04/04/2013



UNIVERSITY
of HAWAII
MĀNOA

12 June 2012

Dr. Donald Price, Director
Tropical Conservation Biology and Environmental Science
University of Hawai'i at Hilo

Dear Don,

This letter expresses my very strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (TCBES) at UH Hilo. I have been following the development of this graduate program since I first read a draft of the proposal for the establishment of a MS program about ten years ago. Since that time I have become thoroughly acquainted with the faculty and students, their research, their excellent track record for obtaining grants and their tremendous success recruiting minority students, especially of Hawaiian and Pacific island ethnicity.

For the past three years, I have served on the NSF CREST (Centers for Research Excellence in Science and Technology) External Advisory Board (EAB), which has thoroughly evaluated this program. Each year, the EAB has determined the program to be successful in the areas of student and faculty research and in maintaining high standards of quality for the graduate program. Students have undertaken a broad spectrum of thesis research topics in both marine and terrestrial biology, and their rate of successful and prompt completion of the degree program is better than several science programs on the UH Manoa campus with which I am familiar. Each year the EAB has suggested ways in which the program itself, as well as the administrative and financial support for the program can be improved. We have been pleased to see that our recommendations have been taken seriously, and that the program has made steady progress. We feel TCBES can and should develop a PhD program, as soon as the necessary resources can be made available.

This program is one that is well suited to UH Hilo. The opportunities for research and training in field and laboratory biology (including conservation biology and natural resource management) are already well-developed at UH Hilo. The Big Island is arguably the best place in the state for a program like this, and current faculty and students have taken advantage of the variety of ecosystems and research questions available to them. TCBES is steadily improving as the faculty itself grows, and both individual faculty and the program itself continue to obtain grants and recruit enthusiastic and talented students to the career paths that TCBES offers. The breadth and depth of career opportunities will definitely increase when the PhD is in place.

At this point in time, it is critical that faculty, administrators, students and advisors work together to address students' needs and aspirations. Having a PhD offered at UH Hilo will be an invaluable asset to students from across the Pacific Basin as well as those from the United States and other countries.

Aloha,

A handwritten signature in cursive script that reads 'Sheila Conant'.

Sheila Conant, PhD, Professor



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MĀNOA

Pacific Biosciences Research Center
Center for Conservation Research and Training

Dr. Don Price
Tropical Conservation Biology and Environmental Science Program
University of Hawaii, Hilo
200 West Kawili Street
Hilo Hawaii 96720

23 July 2012

Dear Don,

This letter is a statement of my support for your development of a PhD program in Tropical Conservation Biology and Environmental Science (TCBES) at UH Hilo.

As a faculty member in the Pacific Biosciences Research Center and Chair of the Ecology, Evolution and Conservation Biology (EECB) program at the University of Hawaii, Manoa, I welcome this potential development wholeheartedly. Hawaii is an exceptional location to undertake research on the interdigitating areas of TCBES and EECB. There are vast open opportunities for PhD students to undertake projects in these critical areas, critical because Hawaii is the 'endangered species capital of the USA' and perhaps the world, as well as the 'invasive species capital' of the world.

Both you and a number of the UH Hilo faculty are already members of the UH Manoa EECB program, have participated as members of Manoa PhD student committees, and collaborated with UH Manoa faculty in numerous ways, including acting as PIs and co-PIs on collaborative research grants crossing the two campuses.

However, we at UH Manoa have way more excellent applicants than we can admit for the PhD programs of the various departments that participate in the EECB program. Thus, by developing your PhD program in TCBES, you will enhance the available opportunities to bring good students to the University of Hawaii and to undertake both important and fascinating research in these disciplines in which UH has a competitive advantage and can truly excel.

As your program develops, I can see great scope for increased collaboration, both informally as at present, but possibly even on a more formal level that could involve co-teaching of courses and closer integration of our two graduate programs.

I wish you the best in your proposal to initiate a PhD program in TCBES at UH Hilo and look forward to our continuing and developing collaboration.

Sincerely,

A handwritten signature in black ink that reads 'Robert H. Cowie' with a decorative flourish underneath.

Robert H. Cowie, Ph.D.
Chair, Ecology, Evolution and Conservation Biology graduate program

3050 Maile Way • Gilmore 408
Honolulu, Hawaii'i 96822
Telephone: (808) 956-4909
Fax: (808) 956-2647
E-mail: cowie@hawaii.edu

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July 11, 2012

Dr. Don Price
Director, TCBES
200 West Kawili Street
Hilo, Hawaii 96720

Aloha Dr. Price,

I am writing to convey my strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo.

Kamehameha Schools (KS) has collaborated with the faculty in the TCBES program since its inception, and we look forward to continuing and enriching our collaboration as your PhD program develops. The scientific areas of exploration your program covers are well aligned with those of KS, and of critical importance to both our mission as an education institution and as a steward of lands in Hawaii.

The establishment of the PhD in TCBES will allow members of KS to more directly interact with your faculty and students in such ways as serving as major advisors on students' committees, conducting seminars for students and others, developing joint proposals to other agencies, and sharing access to facilities, research sites and resources, and personnel with overlapping and complementary expertise. We are especially interested in the opportunity this provides for young Hawaiian and local scholars to develop into the experts and managers of Hawaii's precious resources.

We are pleased about this burgeoning program at UH Hilo and will be able to support interns and/or research associates as this program continues to develop. It is this type of synergy that will enable KS and your University to continue to develop the STEM talent base in Hawaii and across the Pacific Basin.

Sincerely,

Kaeo Duarte, Ph.D.
Regional Asset Manager
Land Assets Division



United States Department of Agriculture

**Research, Education and Economics
Agricultural Research Service**

June 12, 2012

Dear Don:

I strongly support the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo. USDA-ARS has collaborated with the faculty in the TCBES program from the beginning, and we look forward to expanding our collaboration through a PhD program. Occasionally TCBES students have research interests in invasive species or other areas related to agriculture that align well with the goals of ARS and the interests of ARS scientists. Our scientists may also have expertise in areas that are useful across disciplines such as genomics, proteomics, and computational biology.

The establishment of the PhD in TCBES will allow ARS scientists to more directly interact with your faculty and students in such ways as serving as major advisors on students' committees, teaching courses or seminars in conjunction with UH Hilo faculty, developing joint grant proposals, and sharing access to facilities, research sites and resources. This would be highly beneficial to ARS.

We are excited about the growth potential of this program at UH Hilo and will be able to support interns and/or research associates to help launch the program. This is this type of synergy that will enable our agency and your University to continue to develop the STEM talent base in Hawaii and across the Pacific Basin.

Sincerely,

A handwritten signature in black ink, appearing to read "Peter".

Peter Follett, PhD
Research Entomologist
USDA-ARS, Hilo, Hawaii



Pacific West Area

Pacific Basin Agricultural Research Center

PO Box 4459, Hilo, HI 96720

Voice: 808.959-4303 Fax: 808.959-5470 E-mail: peter.follett@ars.usda.gov

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MĀNOA

CENTER FOR CONSERVATION RESEARCH AND TRAINING
PACIFIC BIOSCIENCES RESEARCH CENTER

July 16, 2012

Dr. Donald Price
Director, Tropical Conservation Biology and Environmental Science
University of Hawaii at Hilo
200 West Kawili Street
Hilo, HI 96720

Dear Dr. Price,

I am writing to convey my strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo. As you know, we established the Ecology, Evolution, and Conservation Biology (EECB) Graduate Specialization at UH Manoa in 1991, and it has been one of the strongest graduate programs in the life sciences at Manoa. Because of the unique features of the Hawaiian Islands, and especially those found on the Island of Hawaii, there is great potential for attracting top notch students from the best institutions across the nation and internationally. Since the EECB program at UHM is not a separate degree granting program, the proposal to establish a Ph.D. program in TCBES would be a great opportunity for UHH to take a leadership role within the UH System.

The EECB program at UHM, especially via the NSF EPSCoR Project has been actively collaborating with TCBES faculty during the course of the MS program, and we look forward to deepening our levels of collaboration as the PhD program emerges. We anticipate that our faculty and staff will engage in proposal development, mentoring of students, and co-teaching of graduate level classes and seminars as this valuable program comes to fruition.

This program is one that is well suited to UH Hilo. As we continue to recruit students to the career paths that a PhD in TCBES will offer, it is critical that we all work together to address those students' needs and aspirations. Having the terminal degree offered at UH Hilo will be a valuable asset to our students from across the Pacific Basin as well as those from the United States and other countries.

Aloha,

A handwritten signature in black ink, appearing to read 'Kenneth Kaneshiro'.

Kenneth Y. Kaneshiro
Director
Center for Conservation Research & Training

3050 MAILE WAY, GILMORE 406
HONOLULU, HAWAII 96822
TEL: (808) 956-6739
FAX: (808) 956-2647
EMAIL: kykanesh@hawaii.edu

UNIVERSITY OF HAWAII AT MANOA

Hawaii Institute of Marine Biology

June 18, 2012

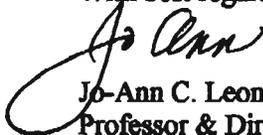
Donald Price, Professor
Tropical Conservation Biology and Environmental Science program
University of Hawaii – Hilo

Dear Don,

I am writing to convey my strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo. The Hawaii Institute of Marine Biology in the School of Ocean & Earth Science & Technology at the University of Hawaii at Manoa has been actively collaborating with TCBES faculty during the course of the MS program, and we look forward to deepening our levels of collaboration as the PhD program emerges. We anticipate that our faculty and staff will engage in proposal development, mentoring of students, and co-teaching of graduate level classes and seminars as this valuable program comes to fruition. HIMB faculty members Rob Toonen, Ruth Gates, Megan Donahue, Steve Karl, and Florence Thomas already collaborate with TCBES faculty at UH Hilo through the NSF-sponsored EPSCoR program. Rob and Ruth also serve on the graduate degree committees for several students in TCBES. We all strongly support the TCBES program effort to offer doctoral degrees at UH Hilo.

This program is one that is well suited to UH Hilo. As we continue to recruit students to the career paths that a PhD in TCBES will offer, it is critical that we all work together to address those students' needs and aspirations. Having the terminal degree offered at UH Hilo will be a valuable asset to our students from across the Pacific Basin as well as those from the United States and other countries.

With best regards,



Jo-Ann C. Leong, Ph. D.
Professor & Director
Hawaii Institute of Marine Biology
joannleo@hawaii.edu



United States Department of the Interior



NATIONAL PARK SERVICE
Hawai'i Volcanoes National Park
Post Office Box 52
Hawaii National Park, Hawai'i 96718

IN REPLY REFER TO

July 17, 2012

Donald K. Price
Director of TCBES
200 West Kawili Street
Hilo Hawaii 96720

Dear Mr. Price:

Hawai'i Volcanoes National Park strongly supports the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo.

Hawai'i Volcanoes National Park has collaborated with the faculty in the TCBES program since its inception, and we look forward to continuing and enriching our collaboration as your PhD program develops. The scientific areas of exploration your program covers are well aligned with those of this agency, and of critical importance to both our mission and our nation's workforce.

The establishment of the PhD in TCBES will allow members of this agency to more directly interact with your faculty and students in such ways as serving as major advisors on students' committees, conducting seminars for students and others, teaching courses in conjunction with UH Hilo faculty and/or alone, developing joint proposals to other agencies, and sharing access to facilities, research sites and resources, and personnel with overlapping and complementary expertise.

The park has invested considerable resources to the management of endemic species and ecosystems and their protection from the impacts of invasive species. The most effective strategies rely on the best available science to park managers. Over the years we have collaborated with UHH faculty and graduate students on several projects that have directly supported our management of biological resources in the park. These include monitoring the status of rare forest birds, evaluating light-partitioning as a tool for discouraging invasive grasses in native forest, and characteristics that contribute to the invasiveness of introduced plants. Several of the graduate students that have graduated with Masters Degrees from the TCBES program went on to having careers with the park service. We see the development of a PhD program as further strengthening the relationship and look forward to engaging with faculty and staff in the PhD TCBES program.

Sincerely,


Cindy Orlando
Superintendent



United States
Department of
Agriculture

Marketing and
Regulatory
Programs

Animal and
Plant Health
Inspection
Service

Wildlife Services

National Wildlife
Research Center
Hawaii Field Station
Amauulu Road
PO Box 10880
Hilo, HI 96721
Ph: 808 961-4482
Fax: 808 961-4776

January 7, 2011

Donald K. Price
Director of TCBES
200 West Kawili Street
Hilo Hawaii 96720

Dear Dr. Price,

I am writing to convey my strong interest in the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo. USDA APHIS National Wildlife Research Center has collaborated with the faculty in the TCBES program since its inception, and we look forward to continuing and enriching our collaboration as your PhD program develops. The scientific areas of exploration your program covers are well aligned with those of this agency, and of critical importance to both our mission and our nation's workforce.

The establishment of the PhD in TCBES will allow members of this agency to more directly interact with your faculty and students in such ways as serving as major advisors on students' committees, conducting seminars for students and others, giving guest lectures, developing joint proposals to other agencies, and sharing access to facilities, research sites and resources, and personnel with overlapping and complementary expertise.

The USDA National Wildlife Research Center is the federal institution devoted to resolving problems caused by the interaction of wild animals and society. The Center applies scientific expertise to the development of practical methods to resolve these problems and to maintain the quality of the environments shared with wildlife. The Hawaii Field Station's research is focused on developing safe and effective methods and strategies to manage the effects of invasive species to agriculture, natural resources, and human health and safety in island ecosystems.

We are pleased about this burgeoning program at UH Hilo and look forward to working with interns and/or research associates as this program continues to develop. It is this type of synergy that will enable our agency and your University to continue to develop the STEM talent base in Hawaii and across the Pacific Basin.

Please let me know if you need anything further. Thank you for your time and attention.

Respectfully,

William C. Pitt, PhD
Field Station Leader
Will.Pitt@aphis.usda.gov



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An Equal Opportunity Employer



Cornell University

Jed P. Sparks, Ph.D.

Director, Office of Undergraduate Biology

Director, Cornell Isotope Laboratory (COIL)

Associate Professor, Department of Ecology and Evolutionary Biology

Cornell University
E409 Corson Hall
Ithaca, NY 14853

Telephone: 607 254-4270
Fax: 607 255-8088
E-Mail: jps66@cornell.edu

July 8, 2012

I am writing to convey my strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo.

I have been the chairman of the NSF CREST External Advisory Board (the NSF Program that helped to support the creation of the Masters Degree program in TCBES at UH-Hilo. As such, I have observed the development of the program and how graduate studies of this kind are a perfect fit for the students and faculty at UH-Hilo. I have also, as a member of the Cornell faculty, been collaborating in both teaching and research with the TCBES program. I currently have two publications in review with students in the masters program and a colleague of mine here at Cornell has published several papers with students from the TCBES program. In collaboration with a member of the TCBES faculty, Dr. Misaki Takabayashi, we have developed a joint Cornell UH-Hilo course in field ecology that is taught every other year in January. We have successfully taught this joint course four times and plan to continue teaching it into the future. As part of this course, Cornell graduate students experience Hawaii and students from UH-Hilo come to Cornell to participate in analytical analysis and scientific paper writing. We at Cornell look forward to deepening our levels of collaboration as the PhD program emerges. We anticipate that our faculty and staff will engage in proposal development, mentoring of students, and co-teaching of graduate level classes and seminars as this valuable program comes to fruition. Personally and professionally, I am very excited about the development of this program and plan to participate fully in its development

This program is one that is well suited to UH Hilo. As we continue to recruit students to the career paths that a PhD in TCBES will offer, it is critical that we all work together to address those students' needs and aspirations. Having the terminal degree offered at UH Hilo will be a valuable asset to our students from across the Pacific Basin as well as those from the United States and other countries.

Sincerely,

A handwritten signature in black ink that reads "Jed P. Sparks".



NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
National Ocean Service
Office of National Marine Sanctuaries

Pacific Islands Region
726 S. Kihel Rd. | 6600 Kalaniana'ole Hwy., Suite 302
Kihei, HI 96799 | Honolulu, HI 96825
<http://sanctuaries.noaa.gov/about/pacific.html>

June 8, 2012

Don Price, Director
TCBES, UH Hilo
200 W. Kalihi St.
Hilo, HI 96720

Aloha Dr. Price,

I am writing to convey my strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo. The National Oceanic and Atmospheric Administration (NOAA) Office of National Marine Sanctuaries (ONMS) Pacific Islands Region (PIR) has collaborated with the faculty in the TCBES program since its inception, and we look forward to continuing and enriching our collaboration as your PhD program develops. The scientific areas of exploration your program covers are well aligned with those of NOAA, and of critical importance to both our mission and our nation's workforce.

The establishment of the PhD in TCBES will allow members of this agency to more directly interact with your faculty and students in various ways. These could include serving as major advisors on students' committees, conducting seminars for students and others, teaching courses in conjunction with UH Hilo faculty and/or alone, developing joint proposals to other agencies, and sharing access to facilities, research sites and resources, and personnel with overlapping and complementary expertise.

ONMS and the PIR are engaged in a multi-year campaign to increase collaboration with Hawaii's colleges and universities. Through our collaborations, we hope to provide enriching learning experiences for our island students, with the primary objective to raise capacity for the Pacific region—and ultimately to enrich socioeconomic growth throughout our island communities.

We are pleased about this burgeoning program at UH Hilo and will be able to support interns and/or research associates as this program continues to develop. It is this type of synergy that will enable the PIR and your University to continue to develop the STEM talent base in Hawaii and across the Pacific Basin.

Sincerely,

Allen Tom
Regional Director

Fagatele Bay
National Marine Sanctuary/
Proposed Rose Atoll
National Marine Sanctuary
P.O. Box 4318
Pago Pago, AS 96799
<http://fagatelebay.noaa.gov>

Hawaiian Islands Humpback Whale
National Marine Sanctuary
6600 Kalaniana'ole Hwy., Suite 301
Honolulu, HI 96825
<http://hawaiihumpbackwhale.noaa.gov>

Papahānaumokuākea
Marine National Monument
6600 Kalaniana'ole Hwy., Suite 300
Honolulu, HI 96825
<http://hawaiireef.noaa.gov>





United States Department of the Interior

U.S. GEOLOGICAL SURVEY

Pacific Island Ecosystems Research Center
677 Ala Moana Blvd., Suite 615
Honolulu, HI 96813
Phone: (808) 587-7452/Fax: (808) 587-7451



July 9, 2012

Donald Price
Director, TCBES Graduate Program
University of Hawai'i at Hilo
200 W. Kawili St
Hilo, Hawaii 96720

Dear Dr. Price:

I am writing to convey my strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo. Given proper support and resources, a PhD in TCBES would greatly expand the research capacity for conservation biology in Hawaii.

The USGS Pacific Island Ecosystem Research Center (PIERC) has collaborated with the faculty in the TCBES program since its inception, and we look forward to continuing and enriching our collaboration as your PhD program develops. The scientific areas of exploration your program covers are well aligned with those of this agency, and of critical importance to both our mission and our nation's workforce.

The establishment of the PhD in TCBES will allow members of this agency to more directly interact with your faculty and students in such ways as serving as major advisors on students' committees, conducting seminars for students and others, developing joint proposals to other agencies, and sharing access to facilities, research sites and resources, and personnel with overlapping and complementary expertise.

Since its establishment in 1994, PIERC has carried out research on the plants and animals in Hawaii and threats to native species and ecosystems. Our Kilauea Field Station has a long and mutually-beneficial relationship with UH Hilo, including the TCBES program in areas of joint research and opportunities for student projects and employment. A PhD program at TCBES would increase the potential depth of this relationship and provide opportunities for both UH Hilo and PIERC.

We are pleased about this burgeoning program at UH Hilo and expect to be able to support interns and/or research associates as this program continues to develop. It is this type of synergy that will enable our agency and your University to continue to develop the STEM talent base in Hawaii and across the Pacific Basin.

Respectfully,

Gordon Tribble
Center Director

Stanford University

Stanford, CA 94305

July 4, 2012

To: Whom it concerns

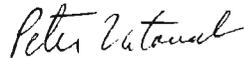
From Peter Vitousek

I am writing to convey my strong support for the development of a PhD program in Tropical Conservation Biology and Environmental Science (PhD in TCBES) at UH Hilo. My colleagues and I at Stanford University have collaborated actively with TCBES faculty and students through the MS program, and we will no doubt deepen that collaboration as the PhD program develops. I'm sure we will develop proposals, mentor students, and collaborate in graduate courses, seminars, and field programs as this program develops.

In addition to the multiple interactions that this program will bring to UH-Hilo, I know it is important to the satisfaction (and retention) of many of your excellent faculty at UH-Hilo. The proposed PhD program is well suited to UH-Hilo; it will be a valuable asset to Hawaii and to the Pacific.

If I can help in any other way, please don't hesitate to contact me.

Sincerely,



Peter Vitousek
Professor of Biology

Cost Revenue Template,

ATP for Ph.D. in TCBES: 04/04/2013

	A	B	C	D	E	F	G	H	I	J	K
1	Academic Cost and Revenue Template - New Program (adjust template for appropriate number of years)										
2	ENTER VALUES IN YELLOW CELLS ONLY										
3	CAMPUS/Program										
4	HILO/Ph.D. in TCBS										
5	Provisional Years (2 yrs for Certificate, 3 yrs for Associate Degree, 6 yrs for Bachelor's Degree, 3 yrs for Masters Degree, 5 yrs for D										
6	Year 1 Year 2 Year 3 Year 4 Year 5 Year 6										
7	ENTER ACADEMIC YEAR (i.e., 2004-05)										
8	2014-2015 2015-2016 2016-2017 2017-2018 2018-2019 2019-2020										
9	Students & SSH										
10	A. Headcount enrollment (Fall)										
11	B. Annual SSH										
12	Direct and incremental Program Costs Without Fringe										
13	C. Instructional Cost without Fringe										
14	C1. Number (FTE) of FT Faculty/Lecturers										
15	C2. Number (FTE) of PT Lecturers										
16	D. Other Personnel Costs										
17	E. Unique Program Costs										
18	F. Total Direct and Incremental Costs										
19											
20	Revenue										
21	G. Tuition										
22	Tuition rate per credit										
23	H. Other										
24	I. Total Revenue										
25											
26	J. Net Cost (Revenue)										
27											
28											
29											
30	Program Cost per SSH With Fringe										
31	K. Instructional Cost with Fringe/SSH										
32	K1. Total Salary FT Faculty/Lecturers										
33	K2. Cost including Fringe of K1										
34	K3. Total Salary PT Lecturers										
35	K4. Cost including fringe of K3										
36	L. Support Cost/SSH										
37	Non-Instructional Exp/SSH										
38	System-wide Support/SSH										
39	Organized Research/SSH										
40	M. Total Program Cost/SSH										
41	N. Total Campus Expenditure/SSH										
42											
43	Instruction Cost with Fringe per SSH										
44	K. Instructional Cost/SSH										
45	O. Comparable Cost/SSH										
46	Program used for comparison.										
47	UH Manoa Natural Sciences Graduate Level										
48	Reviewed by campus VC for Administrative Affairs: (date)										
49	Instructions										
50	Please include an explanation of this template in your narrative.										
51	A. Headcount Enrollment: Headcount enrollment of majors each Fall semester. Located at url: http://www.iro.hawaii.edu/maps/mltitles.asp										
52	B. Annual SSH: Course Registration Report located at http://www.iro.hawaii.edu/maps/mltitles.asp . Add the SSH for the Fall and Spring reports to obtain the annual SSH. This is all SSH taught by the program, including to non-majors.										
53	C. Instructional Cost without Fringe (automated calculation): Direct salary cost for all faculty and lecturers teaching in the program. *Formula for column D: =IF(OR(D32<>""),D32+D34,"")										
54	C1. Number of full time faculty and lecturers who are > .5 FTE.										
55	C2. Number of part time lecturers who are < .5 FTE.										
56	D. Other Personnel Cost: Salary cost (part or full time) for personnel supporting the program (APT, clerical lab support, advisor, etc.) This includes personnel providing necessary support for the program who may not be directly employed by the program and may include partial FTEs. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.										
57	E. Unique Program Cost: Costs specific to the program for equipment, supplies, insurance, etc. For provisional years, this would be actual cost. For established years, this would be projected costs using amortization for equipment and add 4% per year for inflation thereafter.										
58	F. Total Direct and Incremental Cost: C + D + E *Formula for column D: =IF(OR(D13<"",D16<>0,D17<>0),SUM(D13,D16,D17),"")										
59	G. Tuition: Annual SSH x resident tuition rate/credit *Formula for column D: =IF(D10>0,D10*D22,"")										
60	H. Other: Other sources of revenue including grants, program fees, etc. This should not include in-kind contributions unless the services or goods contributed are recorded in the financial records of the campus and included in Direct and Incremental Costs in this template.										
61	I. Total Revenue: G + H *Formula for column D: =IF(OR(D21<"",D23<>0),SUM(D21,D23),"")										
62	J. Net Cost: F - I This is the net incremental cost of the program to the campus. A negative number here represents net revenue (i.e., revenue in excess of cost.) If there is a net cost, please explain how this cost will be funded. *Formula for column D: =IF(AND(D18<"",D24<>""),D18-D24,"")										
63	K. Instructional Costs with Fringe/SSH: (K2 + K4) / B *Formula for column D: =IF(D10<"",SUM(D33,D35)/D10,"")										
64	K1. Salaries without Fringe of Full Time Faculty and Lecturers who are > .5 FTE based on FTE directly related to the program. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.										
65	K2. K1 X 1.35 Formula for column D: =IF(D32<"",D32*1.35)										
66	K3. Salaries without Fringe for Lecturers who are < .5 FTE based on FTE directly related to the program. Add negotiated collective bargaining increases and 4% per year for inflation thereafter.										
67	K4. K3 X 1.05 Formula for column D: =IF(D34<"",D34*1.05)										
68	L. Support Cost/SSH: The campus' non instructional expenditure/ssh + systemwide support - organized research (UHM only) as provided by UH Expenditure Report (http://www.hawaii.edu/budget/expand.html) *Formula for column D: =IF(OR(D37>0,D38>0,D39>0),D37+D38-D39,"")										
69											
70	For example, from the 2005-06 UH Expenditure Report, the support expenditure/ssh per campus is:										
71											
72	UHM \$382.00 + \$60 - \$112 for organized research = \$330										
73	UHH \$278.00 + \$40 = \$318										
74	UHWO \$179.00 + \$32 = \$211										
75	Haw CC \$111.00 + \$33 = \$144										
76	Hon CC \$168.00 + \$38 = \$206										
77	Kap CC \$114.00 + \$30 = \$144										
78	Kau CC \$346.00 + \$68 = \$414										
79	Lee CC \$112.00 + \$28 = \$140										
80	Maui CC \$175.00 + \$39 = \$214										
81	Win CC \$257.00 + \$44 = \$301										
82											
83	M. Total Program Cost/SSH: K + L *Formula for column D: =IF(OR(D31<"",D36<>""),D31+D36,"")										
84	N. Total Campus Expenditure/SSH: Taken from UH Expenditures Report For example, for 2005-2006: UHM = \$799-112 (organized research) = \$687, UHH = \$528, UHWO = \$429, HawCC = \$329, HonCC = \$375, KapCC = \$300, KauCC = \$677, LeeCC=\$279, Maui CC= \$385, WinCC=\$442										
85	O. Comparable Program/Division Instructional Cost/SSH: Taken from UH Expenditures Report (http://www.hawaii.edu/budget/expand.html) or campus data, as available. Please note in the space provided, the program used for the comparison.										
86											
87	Rev. 04/03/09										