

Faculty Report Template

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Proposal title	Continuation of the development of an active teaching and research interaction between CIBNOR and SDSU
Country/ies visited	La Paz, Baja California Sur, Mexico
Institution visited	Centro de Investigaciones Biológicas del Noreste, La Paz, B.C.S, Mexico (CIBNOR)
Dates of travel	December 20-21, 2000, December 27, 2000 to January 4, 2001, February 17-20, 2001, April 11-24, 2001, June 1-12, 2001
Number of student participants:	3 SDSU, 4 CIBNOR
Previous IP proposals submitted and grants awarded (list titles, countries and dates):	Developing the basis for an international curriculum in ecology and environmental science with CIBNOR in La Paz, Mexico, La Paz, Baja California Sur, Mexico, November 14-18, 1999
	Further development of an active teaching and research interaction between CIBNOR and SDSU, La Paz, Baja California Sur, Mexico, Feb 17-20 and April 11-24, 2000
	Continuation of the development of an active teaching and research interaction between CIBNOR and SDSU, La Paz, Baja California Sur, Mexico, August, 2000.
Have all required reports been submitted?	yes

Other funding for this activity available/applied for: A NASA Integrated Assessment proposal was submitted that included La Paz as a research site. An NSF supplemental grant to SDSU's NSF International grant was applied for and awarded. A DOE SURE fellowship was awarded to University of Illinois undergraduate student, David Loehlin to do research at SDSU's field station and La Paz.

Proposal Abstract (75 word maximum): After a year and a half of development, the official award of a joint International research grant by NSF and CONACyT highlight the progress of the SDSU-CIBNOR international program. In achieving this, many important interactions took place and new activities were initiated including facility development, K-12 education, graduate education, course development, and faculty visits. The increase in Hispanic enrolment at SDSU strengthens the intrinsic value of establishing a strong international program with Mexico.

Travel report:

- I. Opening/overview of intentions/activity** Numerous trips by SDSU faculty and students were made to La Paz between October of 2000 and July, 2001. Activities included SDSU faculty visiting elementary school classes, teachers and administrators in La Paz in April, establishment of a working eddy tower in La Paz in May, a follow up workshop on science education using kit based lessons for local elementary teachers and CIBNOR graduate students in June, and an International Modeling meeting held jointly by SDSU and CIBNOR in June. Funds for these trips were supported by SDSU International Program Office, NSF International grant to SDSU, NSF PISCES education grant to SDSU

- II. In preparation for the trip abroad**
 - Ecology course using eddy covariance data, <http://www.sci.sdsu.edu/GCRG/bio354/bio354.html>, was given in the fall of 2000. The intention is that this web page and course will form a method to tie the La Paz data with both research and educational activities (graduate and undergraduate) at SDSU and serve as a model to develop shared course and activities with CIBNOR
 - Dr Jim Burns, SDSU faculty in the engineering department (jburns@mail.sdsu.edu) designed a solar power system for the La Paz eddy tower and got a national distributor to donate 4-70 watt panels
 - Numerous e-mails were exchanged between SDSU and CIBNOR in coordinating all activities

- III. Upon arrival/specific activity** Two trips were made at the end of the year, first of 2001. During these trips I met with graduate students at CIBNOR about their interest in K-6 science education. There was considerable interest, in part attributed to the cohort of older graduate

students who currently had children in the elementary school. This set the stage for a visit of a contingent of SDSU faculty to elementary schools (12) and universities (3) in La Paz. Participants included Dr. Kathy Williams (kwilliam@sunstroke.sdsu.edu), Dr. Donna Ross (dlross@mail.sdsu.edu) Ms. Nancy Taylor (ntaylor@sdcoe.k12.ca.us, Director of San Diego County Science Education and Co-Pi on NSF PISCES project) and Mr. Steve Hastings (shasting@sunstroke.sdsu.edu). A return trip was made in June by my self, Dr. Williams, Ms Taylor and Mr. Hastings to conduct a workshop on using science kits in inquiry based science education for elementary grades schools. Also in June, 23 International modelers and researchers attended a Arctic modeling conference in La Paz. A portion of the meeting was dedicated to regional modeling of Baja and provided an opportunity for both CIBNOR faculty and graduate students to exchange ideas and ask questions of the conference participants. As both solar power and a fiber optics link with the eddy tower was established in April, during May, a trip was made to initiate data collection.

- IV. Conclusion, recommendation, and next step?** Enthusiasm for an elementary science education program in La Paz is high. Plans were made to submit proposals to NSF and CONACyT to fund these activities. The goal is to initiate the program in 2002. Researchers and graduate students are currently assembling data at both SDSU and CIBNOR to parameterize an ecosystem model for the La Paz tower site. Initiation of ancillary field measurements to compliment the modeling and eddy covariance data is felt to be the most critical next step.
- V. Additional Information** Mr. Larry Miller from CIBNOR has been on sabbatical at SDSU since February 2001. He has built a web page and data base to manage and graph data coming from eddy towers in the Arctic, chaparral and now from La Paz (<http://fs.sdsu.edu/project/met1.html>). PISCES fellows have initiated a web site that incorporates this real time data into lessons plans for elementary schools (<http://fs.sdsu.edu/pisces/>). A field trip by Yufu Cheng (SDSU Joint Doc student ycheng@sunstroke.sdsu.edu) and DOE supported undergraduate student in July to collect soil respiration data and install soil moisture probes at the tower site in La Paz was made. A seminar was given to graduate students at CIBNOR on eddy covariance techniques as part of the field trip by Steve Hastings. A proposal to NSF was submitted in September to fund SDSU student involvement in science education in La Paz as part of the PISCES (<http://www.sdsa.org/pisces/index.html>) project.

All information should be sent to The Office of International Programs via e mail:

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