## CONSERVATION CONVERSATIONS



A PUBLICATION OF THE BIODIVERSITY & CONSERVATION BIOLOGY PROGRAM @CEDAR CREST COLLEGE



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#### **Biodiversity & Conservation Biology Major Arrives at CCC**

#### BY NICOLE SPERBECK '04

DEVELOPED IN THE SPRING OF 2001 BY DR. CIGLIANO, THE **BIODIVERSITY &** CONSERVATION BIOLOGY (BCB) MAJOR AT CEDAR CREST COLLEGE IS A FIELD-BASED PROGRAM FOR STUDENTS WHO ARE INTERESTED IN ENVIRONMENTAL ISSUES THAT CONCERN THE LOSS OF **BIODIVERSITY, SUCH ISSUES** INCLUDE THE ORIGIN AND MAINTENANCE OF **BIODIVERSITY, THE EFFECTS OF** HABITAT LOSS AND FRAGMENTATION, INVASIVE SPECIES, AND

OVEREXPLOITATION ON BIODIVERSITY, THE DESIGN AND IMPLEMENTATION OF NATURE RESERVES, THE RESTORATION OF DEGRADED ECOSYSTEMS, AND THE USE OF ZOOS, BOTANICAL GARDENS, AND AQUARIUMS IN MAINTAINING AND RESTORING BIODIVERSITY.

BCB STUDENTS GET A STRONG BACKGROUND IN ECOLOGY AND CONSERVATION BIOLOGY THROUGH COURSE AND FIELDWORK AND, BEGINNING IN THEIR FRESHMEN YEAR,

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## **New Conservation Club**

BY AMBER ZEHNER '04

IN THE FALL OF 2002, CEDAR CREST COLLEGE STUDENTS STARTED A CONSERVATION CLUB ON CAMPUS. THE ADVISORS, DR. JOHN CIGLIANO AND DR. AMY FAIVRE ARE VERY EXCITED TO SEE SOME CONSERVATION AND ENVIRONMENTAL ACTION TAKING PLACE ON OUR CAMPUS. THE CLUB, FOUNDED BY JUNIORS NICOLE SPERBECK AND AMBER ZEHNER CURRENTLY HAS AROUND 10-15 ACTIVE MEMBERS, AND HOPES THAT WITH MORE INTERESTING AND ENGAGING ACTIVITIES THAT NUMBER WILL INCREASE.

AS SOON AS THE CLUB WAS APPROVED BY THE SGA, THEY HIT THE GROUND RUNNING, SO TO SPEAK. IN OCTOBER, THEY



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LIZ CONDUCTING FIELDWORK AT THE ACOPIAN CENTER FOR CONSERVATION LEARNING AT HAWK MOUNTAIN SANCTUARY



"STUDENTS HAVE THE OPPORTUNITY TO PARTICIPATE IN FIELD STUDIES TO PLACES SUCH AS THE AMAZON RAINFOREST AND THE CORAL REEFS OF THE BAHAMAS." New Major in Biodiversity & Conservation Biology

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THROUGH RESEARCH DONE IN COLLABORATION WITH ONE OF THE BCB FACULTY (DR. CIGLIANO, DR. FAIVRE, DR. KLIMAN, OR DR. HALE). STUDENTS WILL ALSO HAVE THE OPPORTUNITY TO PARTICIPATE IN FIELD STUDIES TO PLACES SUCH AS THE **AMAZON RAINFOREST** AND THE CORAL REEFS OF THE BAHAMAS. AND THROUGH OUR COLLABORATION WITH HAWK MOUNTAIN **SANCTUARY**, STUDENTS WILL BE ABLE TO TAKE CLASSES. CONDUCT INDEPENDENT RESEARCH AND DO INTERNSHIPS AT A WORLD-CLASS AND INTERNATIONALLY KNOWN SANCTUARY.

CONSERVATION BIOLOGY, HOWEVER, IS NOT ONLY FIELDWORK. STUDENTS WILL ALSO LEARN VALUABLE (AND MARKETABLE) LAB-BASED SKILLS, SUCH AS GEOGRAPHICAL INFORMATION SYSTEMS (GIS) AND COMPUTER MODELING, USING OUR STATE-OF-THE-ART COMPUTATIONAL BIOLOGY LAB.

CONSERVATION BIOLOGISTS ARE ALSO CONCERNED WITH PUBLIC POLICY. SCIENCE MUST BE INTEGRATED INTO POLICY SO THAT CONSERVATION PLANS CAN BE PUT INTO PRACTICE. TOWARDS THIS END, STUDENTS WILL GET A STRONG GROUNDING IN PUBLIC POLICY ANALYSIS AND IN THE EXAMINATION OF CONTEMPORARY POLITICAL PERSPECTIVES THROUGH COURSEWORK, INTERNSHIPS, AND SERVICE LEARNING.

A B.S. IN BCB FROM CEDAR CREST COLLEGE WILL PREPARE STUDENTS FOR GRADUATE STUDY IN CONSERVATION BIOLOGY AND ENVIRONMENTAL POLICY OR REWARDING CAREERS IN CONSERVATION AND ENVIRONMENTAL GOVERNMENTAL AND NON-GOVERNMENTAL AGENCIES AND ORGANIZATIONS, POLICY AND ADVOCACY JOBS, ENVIRONMENTAL CONSULTING FIRMS, LAW AND PUBLISHING FIRMS, EDUCATION, AND ZOOS AND AQUARIUMS.

For more information on the major, contact Dr. John Cigliano at 610.606.4666, ext. 3702 or at Jaciglia@cedarcrest.edu.

YOU CAN ALSO VISIT THE BCB WEBSITE THROUGH THE LINK AT THE DEPARTMENT OF BIOLOGICAL SCIENCES WEBSITE: www2.cedarcrest.edu/academic/bio/homepg.html

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#### **Conservation Club**

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RAISED MONEY FOR A NEW NAME AND A NEW CAGE FOR AN IGUANA, WHOSE HOME IS IN THE BCB LAB (SC106). "ZEUS" WAS THE CHOSEN NAME AND THE CLUB WAS ABLE TO RAISE \$40 FROM DONATIONS, WHICH BUILT ZEUS A LOVELY HOME, WITH MUCH MORE ROOM. THE CLUB ALSO SOLD CANDY BASKETS TO BE GIVEN OUT FOR HALLOWEEN TO STUDENTS ON CAMPUS, FROM WHICH THEY GROSSED AROUND \$120.

NOW IT'S SPRING, AND AS THE CLUB'S POPULARITY GROWS. MORE FUN ACTIVITIES AND PROJECTS ARE BEING PLANNED. ONE OF THE PROJECTS IS THE ADOPT-A-HIGHWAY PROGRAM. MEMBERS OF THE CLUB. ALONG WITH ANY OTHER VOLUNTEERS ON OR OFF CAMPUS WILL BE CLEANING UP LITTER AND TRASH ON THE SHOULDER OF ROUTE 222. OR HAMILTON BLVD. ANOTHER ONE OF THE IMPORTANT PROJECTS IS A CAMPUS RECYCLING PROGRAM. THE CLUB HAS PUT OUT **RECYCLING CONTAINERS IN** BUTZ HALL ON CAMPUS FOR SODA CANS, WHICH ARE TAKEN TO A SPECIAL RECYCLING CENTER. SO FAR, THE PROGRAM HAS BEEN SUCCESSFUL IN BUTZ, AND THE CLUB PLANS TO INCLUDE THE OTHER THREE DORMS ON CAMPUS.

However, the top priority on the Conservation Club's list is **Earth Day 2003**, a campus- and Community-wide celebration of our earth. We are teaming up with other clubs such as the Art Society and the Preterite, to bring the campus an exciting day of environmental education and activities (see p. 7 for schedule).

THE CLUB PLANS ON INVITING AREA NURSERY SCHOOLS, AFTER SCHOOL PROGRAMS AND THE CAMPUS GIRL SCOUTS ORGANIZATION ON TO THE CELEBRATION, WHICH WILL FEATURE FUN CHILDREN'S OUTDOORS ACTIVITIES ALONG WITH A PLAY-ADAPTED VERSION OF DR. SEUSS' BOOK "THE LORAX."

IN THE EVENING THE CLUB HAS INVITED ALUMNI KATHERINE MCCARTER '64, CURRENTLY THE EXECUTIVE DIRECTOR OF THE ECOLOGICAL SOCIETY OF AMERICA TO COME AND GIVE A PRESENTATION, WHICH IS OPEN TO THE PUBLIC. THE TITLE OF MS. MCCARTER'S TALK IS ''MAKING A DIFFERENCE THROUGH ECOLOGICAL SCIENCE''. ALSO SCHEDULED IS A PANEL DISCUSSION ON ENVIRONMENTAL ISSUES AND

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"CARING ABOUT THE ENVIRONMENT IS NOT JUST AN ISSUE FOR SCIENCE MAJORS!"



ZEUS

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## **Conservation Club**

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CAREERS. THE PANEL WILL INCLUDE ALUMNI, CURRENT STUDENTS, AND ENVIRONMENTAL PROFESSIONALS.

SOUND INTERESTING? MAKE SURE TO ATTEND WEEKLY CONSERVATION CLUB MEETINGS TO GET ALL OF THE INFORMATION YOU NEED AND TO MAKE A CONTRIBUTION. THE DATES AND TIMES ARE POSTED PUBLICLY, AND ALL MAJORS ALL WELCOME! BE SURE TO CHECK THE CLUBS WEBSITE AT HTTP://WWW2.CEDARCREST.E DU/ACADEMIC/BIO/JCIGLIANO /BCB/CONSERVATION\_CLUB. HTML

CARING ABOUT THE ENVIRONMENT IS NOT JUST AN ISSUE FOR SCIENCE MAJORS!

# BCB Students study conservation ecology of Bahamanian coral reefs

BY NICOLE SPERBECK '04

As a Biodiversity and Conservation Biology Major at Cedar Crest College, I had the Opportunity to participate In the Marine Field Ecology and Biodiversity course that was taught by Dr. Cigliano on Andros Island, the Bahamas. We spent nine beautiful days in Stanyard Creek snorkeling around coral reefs and exploring mangrove forests. Our BASE STATION WAS THE BAHAMAS ENVIRONMENTAL RESEARCH CENTER (BERC), WHERE WE WOULD START OUR DAY WITH BREAKFAST AND A BRIEF OVERVIEW OF THE DAYS' ACTIVITIES. ONCE "CLASS TIME" WAS OVER WE WOULD HEAD OUT TO THE FIELD, WHETHER THAT BE THE OCEAN, A TERRESTRIAL BLUE HOLE, OR A NEIGHBORING VILLAGE, AND PARTAKE IN FIELD EXPERIENCES.

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NICOLE, LINDASY, & ERICA HOLDING LOCALLY MADE BAHAMIAN STRAW BASKETS

"WE SPENT NINE BEAUTIFUL DAYS IN STANYARD CREEK SNORKELING AROUND CORAL REEFS AND EXPLORING MANGROVE FORESTS."

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## **Bahamian Coral Reefs**

CONTINUED FROM PG. 3

AS A CLASS PROJECT, WE CONDUCTED A BASELINE SURVEY OF THE BIODIVERSITY OF FISH SPECIES IN COCONUT GROVE TO DETERMINE IF NUTRIENT RUNOFF WAS AFFECTING SPECIES RICHNESS OF THE PATCH REEF SYSTEM. TO ACCOMPLISH THIS, GROUPS OF US SNORKELED AROUND COCONUT GROVE ON A WARM, SUNNY DAY AND WROTE DOWN ALL THE DIFFERENT TYPES OF FISH WE SAW. IT WAS THE BEST RESEARCH PROJECT I HAVE EVER DONE!

ALSO, DURING OUR TIME AT STANYARD CREEK, WE HAD THE FORTUNE OF MEETING LOCAL RESIDENTS AND EXPERIENCING THEIR CULTURAL FESTIVITIES. JUNKANOO, WHICH IS THE BAHAMIAN VERSION OF MARDI GRAS, WAS GOING ON AND ALL OF US WERE ABLE TO PARTICIPATE IN THE CELEBRATION BY HELPING THE LOCAL CHILDREN MAKE MASKS



"THE COMMUTE" – LIZ, ERICA, & DR. CIGLIANO GET A LITTLE WET ON THE WAY TO THE REEF.

AND ATTENDING THE COMMUNITY PICNIC.

THE MARINE FIELD ECOLOGY AND BIODIVERSITY CLASS WAS IMPORTANT TO ME BECAUSE IT GAVE ME A CHANCE TO STUDY IN THE FIELD AS WELL AS INTERACT WITH LOCAL RESIDENTS AND TALK ABOUT CONSERVATION ISSUES THAT AFFECT THEIR LIVES. I WOULD ENCOURAGE AS MANY PEOPLE AS POSSIBLE TO TAKE THIS COURSE BECAUSE IT IS NOT ONLY A WONDERFUL EXPERIENCE, BUT A REWARDING EXPERIENCE.



NICOLE GETTING READY TO DO SOME RESEARCH

"GROUPS OF US SNORKELED AROUND COCONUT GROVE ON A WARM, SUNNY DAY AND WROTE DOWN ALL THE DIFFERENT TYPES OF FISH WE SAW. IT WAS THE BEST RESEARCH PROJECT I HAVE EVER DONE!"





A PAIR ON QUEEN TRIGGERFISH – ONE OF THE MANY TROPICAL FISH SEEN BY SNORKELING AROUND ANDROS.



Christina Mejias'06 Flagging a Christmas tree in Acopian Center plots.



CORINNE CAMPBELL'05 ENTERING A GPS POINT



KALYN HOPE'06 ENTERING LOCATION OF CHRISTMAS TREE AND GINA MALLORY'05 FLAGGING TREE.

#### **Geographic Information System (GIS) Comes to Cedar Crest**

WHAT ARE THESE STUDENTS DOING - ARE ALL THE ANSWERS IN THE SKY? WELL, SORT OF. THESE STUDENTS ARE USING GPS (GLOBAL POSITIONING SYSTEM) UNITS TO RECEIVE SIGNALS FROM THE **UNITED STATES NAVSTAR** SATELLITE SYSTEM. WHEN THEY ENTER A POINT INTO THE GPS UNIT, THE SATELLITE SIGNALS ARE RECORDED AS A DISTINCT LOCATION VIA LATITUDE AND LONGITUDE. **RETURNING TO CEDAR CREST** COLLEGE, STUDENTS HOOK UP THEIR GPS UNITS TO COMPUTERS IN THE NEW GIS LAB AND DOWNLOAD THEIR POINTS. THESE POINTS ARE THEN MAPPED ONTO AN AERIAL PHOTO OR A DIGITIZED TOPOGRAPHIC MAP USING THE GIS (GEOGRAPHICAL **INFORMATION SYSTEM**) SOFTWARE ARCVIEW.

SHOWN HERE, CHRISTINA MEJIAS'06 AND KALYN HOPE'06 HAVE BEEN WORKING ON A FRESHMAN RESEARCH PROJECT WITH RESEARCH **DIRECTOR AMBER ZEHNER'04** AND DR. AMY FAIVRE. CHRISTINA AND KALYN HAVE BEEN FLAGGING CHRISTMAS TREES ON AN ABANDONED CHRISTMAS TREE FARM THAT IS NOW OWNED BY THE ACOPIAN **CENTER FOR CONSERVATION** LEARNING NEAR KEMPTON, PA. DR. FAIVRE AND CORINNE CAMPBELL'05 HAVE ESTABLISHED VEGETATION

PLOTS ON A PORTION OF THE CHRISTMAS TREE FARM. WHILE CHRISTINA AND KALYN HAVE BEEN MAPPING THE DISTRIBUTION OF CHRISTMAS TREES WITHIN THE PLOTS. CORINNE AND DR. FAIVRE HAVE BEEN MAPPING THE DISTRIBUTION OF OTHER WOODY VEGETATION WITH A DBH (DIAMETER AT BREAST HEIGHT - A STANDARD MEASURE IN ECOLOGY) OF 1 CM OR MORE. WITH THESE MAPS COMPLETED, DR. FAIVRE WILL BE WORKING WITH THE CONSERVATION STAFF AT THE ACOPIAN CENTER TO PLAN FOR FUTURE MANAGEMENT OF THIS SITE. PLANS INCLUDE REMOVAL OF SOME OF THE CHRISTMAS TREES AND NON-NATIVE, INVASIVE WOODY SPECIES, TO PROVIDE ADDITIONAL HABITAT FOR NATIVE PLANT SPECIES AND BETTER NESTING SITES FOR BIRDS.

IN ADDITION TO MAPPING VEGETATION AT THE ACOPIAN CENTER, GINA MALLORY'05 (SHOWN HERE HELPING KALYN) AND CORINNE, ALONG WITH OTHER STUDENTS IN DR. FAIVRE'S GIS COURSE HAVE JUST COMPLETED A MAP OF THE CEDAR CREST COLLEGE ARBORETUM. THE CLASS'S NEXT PROJECT IS TO MAP AND ASSESS HABITAT USE BY BIRDS AND MAMMALS AT TREXLER PARK IN ALLENTOWN, PA. PAGE 7 OF 8



## **Earth Day '03 Schedule**

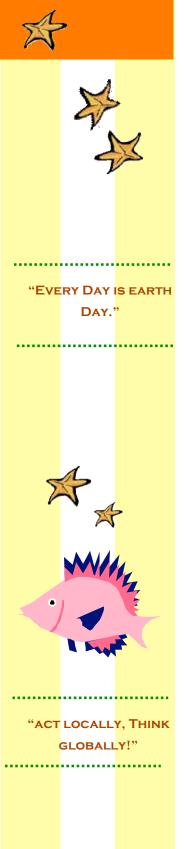
TUESDAY APRIL 22, 2003 EARTH DAY!

11:30-1:30PM CAMPUS-WIDE PICNIC, GRILLS ON TCC VERANDA, EAT ON CAMPUS QUAD IN FRONT OF THE ADMINISTRATION BUILDING WITH MUSIC/MUSICAL PERFORMANCES.

1:30-5:00pm TABLES IN PLACE AROUND THE GREEN WITH: **ALPHA PSI OMEGA** (DRAMA HONOR SOCIETY) PRODUCTION OF THE LORAX IN THE GREEK Theater (2pm) ART SOCIETY PAPER-MAKING WITH RECYCLED PAPER EARTH DAY MURAL (STARTS AT 11AM AND WILL END.....WHEN IT IS FINISHED) BIOLOGY CLUB PLANTING SEEDS IN BIODEGRADABLE POTS CONSERVATION CLUB EDUCATIONAL INFORMATION TABLE PETITION-WRITING TABLE (12-1:30) **TIE-DYE T-SHIRTS** TAKE YOUR PHOTO AS AN ENDANGERED SPECIES THE DISCOVERY CENTER OF SCIENCE AND TECHNOLOGY AND LEHIGH COUNTY COMPOSTING WITH WORMS AND WORM BIOLOGY GOOD SHEPHERD/ART SOCIETY TRASH TO TREASURE CONTEST (ENDS AT 4PM) THE PRETERITE READING OF A CHILDREN'S STORY WILDLANDS CONSERVANCY ANIMAL EXHIBIT WITH INTERPRETERS (1:30-3, 3-5рм)

5:00-6:00 PM Environmental Forum Rodale Institute (Anthony Rodale), Discovery Center (Science Coordinator-David Smith, PhD), Acopian Center at Hawk Mountain Sanctuary (Keith Bildstein, PhD), Katherine McCarter'64,

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#### **CEDAR CREST COLLEGE COLLEGE**

## **Earth Day Schedule continued**

FOR MORE INFORMATION ON THE BIODIVERSITY AND CONSERVATION BIOLOGY MAJOR OR THE CONSERVATION CLUB, PLEASE CONTACT DR. JOHN CIGLIANO AT

PHONE: 610.606.4666, x3702

> Fax: 610.606.4<mark>616</mark>

E-Mail: JACIGLIA@CEDARCREST.E DU 6:15 – 7:15 PM DINNER WITH PANEL SPEAKERS, LOCAL

ALUMS AND FRIENDS, FACULTY, STAFF AND STUDENTS IN TCC

ENVIRONMENTAL ISSUES IN ALASKA)

HEATHER COOK'02 (GRAD STUDENT -

SPERBECK'04 (RECYCLING ON CAMPUS,

RISE IN INFECTIOUS DISEASES WITH

GLOBAL WARMING), NICOLE

PRESENTATION: KATHERINE MCCARTER '64, EXECUTIVE DIRECTOR OF THE ECOLOGICAL SOCIETY OF AMERICA, MAKING A DIFFERENCE THROUGH

ECOLOGICAL SCIENCE HARMON HALL OF PEACE







