

## **Nolan Catholic Senior Ecology Students Study Complex Ecosystems First Hand**

For more than 30 years, Nolan Catholic seniors have had the opportunity of studying the environment and its complex ecosystems outside of the classroom as part of Dr. Joe Kuban's ecology program.

The program is the longest running high school ecology class in the country. It has become a tradition, or right of passage, for many Nolan Catholic students who have participated in excursions to the Costa Rican rainforest, Big Bend, Port Aransas, Caddo Lake, Beavers Bend, Oklahoma, Ranger Hill, and Fort Worth's Tandy Hills Park.

Through the years, the program has attracted significant ecological scientists and environmentalists to Nolan Catholic including Dr. Tom Lovejoy, former head of biodiversity research for the Smithsonian and now member of the H. John Heinz III Center for Science, Economics and the Environment; Dr. Gary Hartshorn, former research director of the World Wildlife fund and now the President and CEO of the World Forestry Center; Dr. David Tilman, Professor of Ecology at University of Minnesota; and noted Primatologist Dr. Jane Goodall.

Student research includes:

- data collected on six intertidal sites at Port Aransas, TX
- Changes in species richness patterns of Grand Cayman corals, sponges and fish following Hurricane Gilbert in 1991
- 17 years of data on flowering patterns of prairie plants at Tandy Hills Park
- 16 years of data collection in the rainforests of Costa Rica
- Reduction of hummingbird visits to flowering Agaves following drought (report to the National Park Service) 2001
- Nectar as a diet Item of the Ring- tailed Cat (Published in the Southwestern Naturalist (1985)

Commenting on her recent trip to Costa Rica to study the rainforest, Nolan Catholic senior Alyssa Bulnes said "This experience is so eye-opening. You realize how diverse the world is and how critical it is to protect it. In Costa Rica they're talking about becoming a carbon-neutral country and I can see why they'd want to, surrounded by all this beauty. How wonderful is that to be peaceful, clean and green. I'd love to be able to spread that here. If everyone on our trip would share that mindset with everyone they come in contact with, we could really start making an impact."

“Our goal with this course was never to turn out ecologists, although we have,” said Dr. Kuban. “I just wanted to turn out students who had a better awareness of where the earth is, what we’ve done to it and what we can do to save it. I’ve tried to teach students to be free thinkers and to look at the earth and say ‘I can be part of the solution’. Education is key. If you don’t spend time in nature, you don’t know what you’re doing to nature. The value of this program is really an enlightenment of what we can do and how we can live.”

Another key objective of the program is to service the communities where they conduct research. Over the past 10 years, NCHS has donated more than \$15,000 to the neighborhood school in Tortuguero, Costa Rica. Support from Nolan Catholic has enabled the school to put in flushing toilets, add classroom space and maintain school buildings. NCHS students also bring soccer balls for the children and take part in an afternoon soccer match with them.