

OUTDOOR EDUCATION AND WILDLIFE BIOLOGY AT COLDSRING HIGH SCHOOL

JAMES B. BOYCE, Department of Science, Coldspring High School, Coldspring, TX

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Coldspring-Oakhurst Independent School District occupies a unique position among public schools in Texas. The school has become widely recognized for its science and outdoor education programs.

Almost all of the school district lies within the Sam Houston National Forest and adjacent to the 35,613 ha Lake Livingston. Outdoor education was a natural inclusion into the curricula. In 1972 high school principal Harold Stone and science director James Boyce formulated plans for courses which would achieve the following needs:

1. Effectively generate student interest in the environment and create a desire to conserve and protect our natural heritage.
2. Instill in students safe, sane, and supervised methods and techniques for using the outdoors.
3. Infuse heavy doses of environmental science and wildlife biology into the curriculum so that the students could learn to appreciate the complexity of the living world and that man is an inextricable part.

Coldspring is only an hour's drive from Houston and the urban population there is moving out into the suburbs. This movement generates a tremendous pressure on the natural environment by people who for the most part know only the artificial city environment of a concrete-asphalt jungle. Thus our school district is having an influx of city people into our rural way of life.

It was decided that the most effective approach to fulfill the needs of our students would be to incorporate into the curriculum a new course containing hunting, fishing, backpacking, camping, hunter safety, marksmanship, canoeing, and survival skills.

Since at the time (1972) there was no available course space in the curriculum, it was decided that we would run a pilot course during the lunch hour for those students who desired to participate. The students could receive no credit and would have to sacrifice their lunch hour to learn outdoor education. Thus for a year, 15 students met with James Boyce, all ate lunch together, and learned hunter safety, marksmanship, camping, and fishing techniques. The original 15 students formed a club (The Coldspring High School Rod, Gun and Conservation Club), to enable themselves to receive some school support in their activities. After sacrificing their lunch time to learn outdoor education it was desired to let the students go on a field trip to practice the skills they had studied. After much searching James Boyce found a west Texas rancher who would allow 15 high school students and 10 adult sponsors to day hunt for white tailed deer. The main problem involved in conducting this field trip was moving 25 people with camping equipment from the pine forests of East Texas to the Chihuahuan desert of the Pecos River, 769 km. away. The school board graciously let the club use a 72 passenger school bus but the students had to pay for the gas. Eight seats were removed from the rear for storing camping gear and everyone rode the 12 hr. drive to the Pecos River. The trip proved such a success that it has been duplicated by the Rod and Gun Club every year for 4 years. The students earned their lease money by carwashes, rifle sales, cake sales, and various other school related projects. Only a little expense was borne by the adults or the school.

Since most of these Rod and Gun Club students had not been farther west than Austin, they learned quite a lot about a different ecosystem. Completing Outdoor Education is now a requirement for being in the Rod and Gun Club.

From this experimental beginning a full fledged course in outdoor education has resulted. Students are begging to enter the course so we have had to limit participation to primarily juniors and seniors with any spaces left over to go on a first come basis.

HUNTER SAFETY

This program is taught as prescribed in the Hunter Safety manual as provided by the Texas Parks and Wildlife Department (TP&W). The program is closely co-ordinated with our local game wardens. All types of rifles and shotguns are used along with various safety films. The course is approximately 30 class hrs. long. Students are

certified by the TP&W upon completion.

HUNTING

Along with the hunting safety course is a 30 classroom hr. hunting section. The wildlife biology of most of the game animals of North America is covered along with hunting methods and techniques. Wildlife field trips in the National Forest are taken to study animal habitat. Students participate in a class squirrel hunt in the San Jacinto River bottom.

MARKSMANSHIP

Scheduled within the same school quarter is 30 classroom hours of marksmanship training. The school has an agreement with the U. S. Department of Army (Director of Civilian Marksmanship) so that the U. S. Army furnishes the school 10 Remington target rifles and 13,000 rounds of .22 cal. ammunition free of charge. Since the school does not have a rifle range, an abandoned forest service gravel pit 4.8 km. from the school is used. Students who score high enough with the .22 cal. rifle are awarded medals by the U. S. Army. Students also shoot skeet, buckshot, and deer rifles. They must qualify in each of the 4 areas. A Saturday field trip is allowed for marksmanship qualifying. All students must have a minor's release of liability signed by their parents before being allowed to participate.

CAMPING

The camping portion of the course covers everything from survival camping to self-contained mobile homes. Camp cooking and tent pitching are favorite items since everyone likes to eat and sleep. The outdoor education center is utilized for camping techniques.

Camp crafts are used throughout the science curricula on most of the many field trips. Some of the field trips include the 3 day — 3 night deer camp on the Pecos River, a 2 day — 2 night canoe camp on the Neches River, a 2 day — 2 night survival camp, an overnight camp out at Aransas Pass Wildlife Refuge, and a 4 day — 4 night excursion to the Big Bend National Park.

CANOEING

This section is the most popular one in outdoor education. Red Cross basic canoeing techniques are taught and the students are certified by the Red Cross upon completion. The climax of the canoeing section is the 2 day — 2 night trip down the Neches River. There is one problem with this section — the acquisition and use of canoes. Our students cannot afford to rent nor can our rural school afford to purchase enough. Consequently, "a-borrowing we must go".

BACKPACKING

Basic backpacking techniques are taught and students are familiarized with all types of backpacking equipment. A 51.5 km. backpack trip is taken through the proposed Four Notch Wilderness Area in the Sam Houston National Forest. The trip lasts 2 days and 2 nights and is considered by the students to be the most challenging of all the field trips.

SURVIVAL

Three weeks of survival training includes survival techniques, edible wild plants, animal procurement, and shelter. The outdoor center is utilized in this section. A 2 day — 2 night survival camp out in an extremely remote area of the Sam Houston National Forest enables the students to apply classroom work to real life situations. The students are allowed only a pocket knife, blanket, and the clothes they are wearing.

FISHING

All sorts of legal methods of fishing are taught but the vast majority of emphasis is placed on sport fishing. Since Lake Livingston is only 3.2 km. from the school, ample opportunity abounds for the students to practice their homework. Proficiency is expected with rod and reel. Upon completion, the student is certified by the American Casting & Angling Association. A tremendous amount of fishery biology pertaining to the habits and habitat of most of the game species of fish is covered. The Texas Skipper Course as prepared for boating safety by the TP&W will probably be incorporated into this section. A bass tournament held on Lake Livingston highlights this part of the course.

ENVIRONMENTAL SCIENCE

In Junior High we have instituted a preparatory course in environmental science. Students utilize the outdoor center and learn geology, soil science, zoology, botany, chemistry, wildlife sciences, and interactions within the environment. Camp crafts and camping techniques are taught. An overnight camping trip to the Aransas Pass Wildlife Refuge completes the course.

OTHER COURSES

The traditional Biology, Chemistry, Physical Science, and Physics have all been modified to reflect interest in the outdoors.

OUTDOOR EDUCATION CENTER

In 1975, a local landowner donated about 2.8 ha of Big Thicket habitat to the school for use as an Outdoor Education Center. The property lies only 457 m. from the school. The land had been used by the science department for about 8 yrs. but only by a gentleman's agreement. Thus, the school acquired a unique piece of property, a remnant of the once vast Big Thicket. A large 29.6 m. deep canyon cuts through the area exposing unusual clay deposits once mined by early Indians for pottery clay. Huge, 200+ year old magnolia and oak trees dominate the forest on the canyon floor. Over 30 springs and 3 boiling mud pots (cold water and mud pots) and immense fern beds bring a tropical jungle-like atmosphere to the center.

The center was originally a city dump. Decades of junk has cascaded down over the canyon rim into the forest below. Junked and rusted automobiles, ice boxes, and an untold number of rusted cans and bottles piled high under the cliffs. However at the bottom, delicate mosses, liverworts, and pioneering lichens were at work slowly reclaiming the refuse.

Since the school had little money to devote to establishing an outdoor education center, the science department appealed to local citizens to provide materials and to the student body to provide labor. Both groups responded with promptness and vigor. A railroad company donated 200 used crossties, an oilfield service company donated 2000 linear feet of 2x6 oak oilfield planking, a sawmill gave 45 cubic yards of pine bark chips, an oil company donated 2,000 feet of 1-1/2 inch oilfield pipe, a county commissioner gave 1,000, 80d bridge spikes, 2 county commissioners provided two 6 yard dump trucks and drivers, one citizen loaned a wrecker with a winch and the school board supplied 500 hot dogs and 720 soft drinks. The student body responded with 350 high school and junior high school students. Ten teachers supervised the work crews and the high school principal, Harold Stone, cooked the hot dogs. Students were allowed to sign up for their work crew preference. Crews were assigned by James Boyce to different areas of the center to perform different tasks. Some worked on trash pick up crews, trail crews, step making crews, bridge crews, etc. Various students brought axes, shovels, hammers, chain saws, and all manner of tools. So during one frantic Saturday in May 1975, concerned students and teacher.:

1. Constructed almost 1.6 km of bark covered trails bordered with dead logs.
2. Constructed a 9.1 m bridge of heavy oak timbers.
3. Sawed 200 railroad ties into 2 foot blocks.
4. Moved 16, 6 cubic yard dump truck loads of trash out of the canyon bottom using a

human chain of trash passers.

5. Constructed over 0.8 km of board walkways over swamps and bogs laid on railroad ties.
6. Constructed a safe winding stairway down to the bottom of the 29.6 m deep canyon.
7. Ate 500 hot dogs and drank 720 sodas in 20 minutes!

Only 2 minor injuries occurred when 2 girls violated rules and waded barefoot in the ice cold spring water and cut their feet. It was an eventful day.

As a result of these efforts many public schools throughout Texas have visited our center and seen our handiwork. Texas A & M, Sam Houston State University, Texas Southern, University of Houston, etc. have collected botanical specimens and praised our center. Several university professors are regular visitors along with their classes of prospective science teachers. Out of state visitors include Project KARE from Pennsylvania and interested citizens from all over.

The canyon center has become an ideal place to study environmental science, outdoor education, and wildlife biology. Hardly a school day passes that some teacher is not escorting a class into the canyon. Not only science but almost all disciplines can find a use in the outdoor center. The students bring their families to the center after hours and on weekends to show off their work. Since the students built the center, vandalism has been negligible.

No Federal or State money was spent on developing our program and only a small amount of school district funds sustain us. As a result of our efforts the Coldspring-Oakhurst I. S. D. is currently on the Texas Education Agency's consultant list for Outdoor Education (Science Division) and acts as an advisor for the Texas Region VI Education Service Center. We have had numerous newspaper writeups, made the Sunday supplement magazine for the Huntsville Item newspaper and T. D. Carroll, hunter safety co-ordinator for the TP&W wrote an article about our program which appeared in the Texas Parks and Wildlife magazine in February 1977, entitled "Learning By Doing".

One must see the uniqueness of the canyon's beauty to realize the magnitude of its preservation and the gleam in a teenager's eye that signifies a job well done.