

A Research Assistance Committee, made up of especially qualified volunteers, is available for use by the professional staff of the Zoo for assignment such as translation of foreign language zoological papers.

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#### HARNESSING THE RESOURCES OF THE ZOOMOBILE

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The Zoomobile, as an extension of zoo activities, has been around for a long time. The vehicles involved have been varied, to say the least. Every kind has been put into service from the ubiquitous station wagon, converted pickup trucks, vans, even in one case, a renovated hay-wagon. Generally the experience has been a rewarding one for all concerned even though it hasn't always been the easiest job to take proper care of the animals involved, plus plan lectures and create study materials necessary to making the visit worthwhile.

With the realization of today's zoos that education is their primary reason for existing, a renewed interest is taking place in developing the interdisciplinary, educational potential of zoomobiles that can, indeed, provide a much needed service to the schools of the community in which they are located.

As a result, today's zoos are taking a second, thoughtful look at the appearance and operation of their "other" face.

About a year and a half ago it was decided that the time was right to start a Zoomobile operation here in Los Angeles. One that would combine the strengths of the Los Angeles City School District through its Pettigrew Science and Animal Center; the Department of Recreation and Parks from whom the Center is leased; the Los Angeles Zoo and our own Greater Los Angeles Zoo Association.

Research which included discussions with zoos such as Philadelphia, Boston, San Francisco, Minnesota, Houston, Chicago and Oklahoma indicated that a great deal of expertise and thought had been put into many of the existing zoomobile programs which, for the most part, was not matched by the vehicle themselves. We benefited from their experiences.

On receipt of the grant monies in July, 1974, we began the rehabilitation of a tractor trailer unit previously used as a California Wildlife Unit. The cost of refurbishing and structural changes made came to about \$4,500.

The trailer is 24 ft. (7.3 m.) long and 10 ft. (3 m.) wide. Three large cages 48" (122 cm.) x 35½" (90 cm.) x 34½" (88 cm.) and two slightly smaller cages, 48" (122 cm.) x 34" (86 cm.) x 23½" (60 cm.) are located on one side at the bottom level. Twelve smaller cages 22½" (57 cm.) x 23¼" (60 cm.) x 22½" (57 cm.) are located on the same side on the second level. The distance from floor to ceiling is 6' 6" (2 m.) providing ample space for easy movement of the animals. Two exhaust fans have been placed in the ceiling, one 110 volt and one 220 volt as well as a 110 volt space heater. A fifty gallon (227 litres) water tank has been added to the interior of the animal compartment along with a flexible hose for washing down the area. Removable trays which can be lined with newspaper have been installed under each cage to facilitate waste disposal. A metal rod locks into place to prevent unnecessary jostling of the cages while the Zoomobile is in motion. Great care is taken by all concerned to ensure the welfare and well being of the animals, birds and reptiles carried aboard.

Canopies on either side of the trailer can be raised. Animals in the cages may be viewed from the left side. On the right side, a teaching platform allows the driver-keeper to handle and display whatever animal is being introduced or used as an illustration.

Built-in shelving in the front of the trailer holds written material, study skins, skeletal samples, various types of eggs and birds nests. Two portable, collapsible demonstration tables are used on which to display these teaching tools. Lavalier-type microphones with amplifiers have been installed for use by the Docent teachers.

We realize that all structural requirements must necessarily reflect the circumstances surrounding the operation of each individual unit. Climate and the length of time

involved in each school visit have a direct bearing on what is needed for the safe transportation and comfort of the animals. For instance, the Minnesota State Zoo foresees its zoomobile operating for several days at a time, covering long distances in extremely cold weather. Therefore, our Los Angeles Zoomobile is not meant to serve as a model, but rather as an example.

The majority of the animals used on our zoomobile are kept at the Pettigrew Science and Animal Center and are cared for by the driver-keeper whose salary is part of the Grant responsibility.

The selection of animals to participate in the program is given very careful consideration. In addition to carrying wildlife indigenous to California, we feel that youngsters benefit by learning something about animals from various parts of North America. Animals that have strange characteristics or that have been the subject of "old wives tales" are always attention getters. It is also necessary to make sure how each individual animal takes the showing off and touching and for how long a period. In all cases, the selection is based on what knowledge can be gained from being able to see and touch the animal for that is what makes the zoomobile learning experience so different and so valuable as an extension of the more usual classroom, textbook situation.

Dr. Warren Thomas, Director of the Los Angeles Zoo, enthusiastic and deeply involved in the project, also supplies appropriate exotic animals when the occasion requires it. The zoo's Curator of Mammals is assigned to oversee the selections and assist the Science Center in their proper maintenance. Veterinary aid is provided whenever necessary. To avoid stress, two to three back-up animals should be maintained in the case of each species.

The zoomobile teaching concept is a logical extension of the many education programs provided at the Los Angeles Zoo by the Great Los Angeles Zoo Association.

The programs we use on the Zoomobile are an extension of the science curriculum used in the Los Angeles City schools. In displaying mammals, birds and reptiles, Docents emphasize Three specific concepts; living things are interdependent with one another and with their environment; a living thing is a product of both its heredity and its environment; and living,

things undergo constant change. Study materials and discussions involved in the explanation of these concepts are tailored to each grade level to ensure understanding. At this time our pre-visit material is in the experimental stage. Kits include a large zoomobile poster, audio tapes, and study material written especially for certain academic levels of students. The material is designed to motivate and build background with students prior to the Zoomobile's visit.

Post-visit kits include a "living things" science kit for a rabbit, a guinea pig and a garter snake. Additional audio tapes reinforce information gained from the visit as do other especially designed study materials. Pre-visit and post-visit tests are given in the classroom to determine the extent of, and in what areas knowledge was gained.

Two Docents accompany the Zoomobile on each visit. Pupils are involved in a questioning, investigating type of instruction and are invited to the petting table where touching the animals may take place, feathers, eggs and skeletal material handled and examples of parallel evolution can be observed. A large chart identifies the food chain or "pyramid of life".

Usually, at the close of each presentation, a homing pigeon is released bearing message written by the students. This is really an exciting climax to the session when we can get our pigeons to cooperate.

Four schools are visited each week with sessions from 30 to 40 minutes long. This allows us a maximum of five sessions per day beginning at 9.30 a.m., ending at 2.30 p.m. A pre-visit with the principal of the school is held at least one week prior to the Zoomobile visit to set up scheduling and logistics. A follow-up visit one to two weeks later is available to teachers of certain grades with an evaluation form to be completed by the teacher as well as the Docent.

During the first pilot year, 1974-1975, we were scheduled to visit seventy five elementary schools, several Junior High Schools and several schools for exceptional children. Since October we have involved 30,000 youngsters and by June this Number will have been increased to 50,000.

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