

**Program: Animal Atlas**

**Episodes reviewed: “Wild Cats”; “Animal Appetites”**

**Program length: 26 minutes (approximately)**

Reviewed by Hall Davidson, Director of Educational Services at KOCE-TV, PBS in Orange County, California

**Animal Atlas** is an entirely appropriate title for this engaging and informative series. Just as browsing through a good atlas makes information about terrain and natural boundaries accessible and appealing, this program brings information about the natural world of animals to viewers in a non-didactic, entertaining way. Its approach in no way diminishes the learning that takes place when observations lead to conclusions—and young minds will draw many conclusions about the natural world shown in this series. These conclusions are consistent with nationally published curriculum goals in the natural sciences. They include concepts such as the functions of animals in an ecosystem (predator/prey relationships, etc.), the elements of animal classification, and the general emphasis on life science.

The programs consist of original and detailed footage of animals, a narration, and a charming musical score. The fast moving clips of greatly varied species and subspecies allows viewers to compare and contrast structure and functionality of animal physiologies and behaviors. The animal subjects are presented as they move informally and comfortably through their normal activities. There is no heightened or artificial drama in the presentations. The narration is well informed and unobtrusive, allowing for the inevitable learning that comes from wonder and delight. Even after thirty years of televised animal footage, this series presents vignettes that are new and very engaging. This series also presents in a non-exploitive way views of animal behavior and physiology that traditional pedagogical programming might not include. The ability for young people to observe, wonder, and compare is one of the strengths of the series.

While the series builds upon and reinforces life science concepts begun at lower levels, the content, the treatment of the content, the presumption of scientific understanding, and particularly the tone and emphasis of the series are most appropriate for secondary schools. General life science concepts in the episodes reviewed are expected to be learned by middle school where many states begin heavy emphasis in life science.

The footage of many species would be compelling to any age, but the level of language and presentation again suggests a secondary school target audience for learning. The terms “predator”, “prey”, “herbivore”, “omnivore” and related vocabulary are not generally expected to be learned before the pre-teen years. Because these terms are not explained in depth, the topics are presumably familiar to the target audience, which would place the level of comfort in middle school for a typical young person. The information presented, e.g. the difference between alligators and crocodiles, the number of teeth grown by sharks in a lifetime, is interesting for that age group. Some of the program segments clearly would be marked for a secondary, as opposed to an elementary, viewer.

The program includes an interactive segment of multiple-choice questions about the animal world. These are not based upon program content but are items of general curiosity and information (“How many hours does a Big Cat sleep?”). These questions are engaging in their own right and are a worthwhile component of the program design. The independence of the questions from the program material preserves the approach of learning from observation and the recognition of patterns, purpose, structure and function.

Underlying the gentle observational approach to learning, key major concepts are presented. The footage of chimpanzees and otters using tools underscores a major philosophical turning point in the definition of man as a species. The programs emphasis on shared, derived characteristics in animals is a significant step in understanding animal classification. Similarly, the matching of form and function of animal anatomy and the presentation of the social behaviors of animals give young viewers a basic understanding of key points that will scaffold scientific learning in the upper grades.

This is a program young people will watch and will learn from. It is a worthwhile addition to the broadcast family.

**Summary:**

Target audience for tone, program content, and learning concepts:

- Middle and high school (ages 13 and above)

General Category of Learning:

- Life Science

Underlying Science Content Standards addressed:

- Functions in ecosystems
- Underlying principles of Animal Classification
- Environment and Adaptive Characteristics
- Adaptation of structure and function for survival

Secondary-specific science content standards addressed (*examples drawn from the California State Science Content Standards, Biology/Life Sciences - Grades Nine Through Twelve*)

- Genetics: Mutation and sexual reproduction lead to genetic variation in a population.
- Ecology: Stability in an ecosystem is a balance between competing effects. Students know biodiversity is the sum total of different kinds of organisms and is affected by alterations of habitats.
- Students know how fluctuations in population size in an ecosystem are determined by the relative rates of birth, immigration, emigration, and death.

- Students know how to distinguish between the accommodation of an individual organism to its environment and the gradual adaptation of a lineage of organisms through genetic change.
- Students know why natural selection acts on the phenotype (physical organism) rather than the genotype (genetic code) of an organism.
- Students know variation within a species increases the likelihood that at least some members of a species will survive under changed environmental conditions.
- Students know how natural selection determines the differential survival of groups of organisms.
- Students know a great diversity of species increases the chance that at least some organisms survive major changes in the environment.
- Students know reproductive or geographic isolation affects speciation.

#### About Hall Davidson

Hall Davidson is currently Director of Educational Services at KOCE-TV, PBS in Orange County, California. He serves as Executive Director of Telecommunications of Orange County, a media consortium serving 200,000 students, and as Director of the California Student Media and Multimedia Festival, now in its 37th year. He taught language arts, mathematics, and foreign language before leaving the classroom to teach secondary mathematics on television on a program that earned an Emmy. He has served as a technology advisor for software manufacturers, commercial and PBS broadcasters, for organizations including the California School Library Association and Technology for Results in Elementary Education; and been part in numerous technology education task forces and committees. He serves as adjunct faculty on two California colleges. He is past president of Video-Using Educators, and serves on the board for Computer-Using Educators (CUE), the largest technology user group in the western United States. He has produced educational series on information literacy, the Internet, and an upcoming series for children ages 0-5.