

films OF THE WEEK

Listing is for readers' information of new 16mm and 8mm films on science, engineering, medicine and agriculture for professional, student and general audiences. For further information on purchase, rental or free loan, write to distributor.

THE AFRICAN LION AND HIS REALM. 16 mm, color, sound, 19 min. Filmed in the wilds of Africa, this study of the king of beasts also reveals little-known facts about his domain and the other predators and grazers that live there. Audience: general. Purchase \$210 from Walt Disney 16mm Films, 800 Sonora Ave., Glendale, Calif. 91201.

BIRDS OF THE WOODLANDS (2nd edition). 16mm, color or b&w, sound, 11 min. Presents nine different birds in terms of the ecological niches they occupy within a woodland. Shows how two ground-nesting birds—the ovenbird and hermit thrush—and seven tree-nesting species—the red-eyed vireo, American redstart, yellow-shafted flicker, purple finch, black-billed cuckoo and red-headed and pileated woodpeckers—build nests, care for their young and protect themselves. Offers a good opportunity to compare three of the best-known American woodpeckers, while the use of authentic bird-calls allows students to hear as well as see the birds. Purchase color \$130 or b&w \$65 from Coronet Films, 65 E. South Water St., Chicago, Ill. 60601.

CORAL WONDERLAND. 16mm, color, sound, 30 min. The coral formations and marine life of the Great Barrier Reef of Australia. Audience: general. Purchase \$255 or loan \$7.50 from Films Officer, Australian News and Information Bureau, 636 Fifth Ave., New York, N.Y. 10020, or Western States, Press and Information Officer, Australian Consulate-General, 350 Post St., San Francisco, Calif. 94108.

GRASS-BLADE JUNGLE. 16mm, color, sound, 11 min. Every back yard and vacant lot is a grass-blade jungle, teeming with small animals that have special functions, characteristics, and relationships to each other. Most of these animals belong to the arthropoda division of the animal kingdom, which includes insects, crustaceans, diplopods, chilopods and arachnids. In simple diagrams, the film explains the differences between these classifications. Extreme close-ups of many kinds of insects and spiders, sowbugs, and the millipede and centipede reveal their particular habits. Audience: upper elementary, junior high school. Purchase information from Bailey Films, 6509 De Longpre Ave., Hollywood 28, Calif.

TOWARD CLEANER AIR. 16mm, color, sound, 15 min. Shows how industry is cooperating with local governments to help combat air pollution, now one of the country's major problems. In non-technical terms, the highly efficient and effective control equipment which traps industrial gases, dust and waste is explained with animation and graphic diagrams. Also revealed is a secondary value to industry: providing in-plant ventilation and dust control, thereby reducing maintenance and repair costs. Audience: senior high school and above. Free loan to groups at senior high level and above from Association Films, 600 Grand Ave., Ridgefield N. J. 07657 or other regional distribution centers of Association Films.

LETTERS

to the editor

Botulism acquired

Since your article "Botulism hits Waterfowl" appeared (SN: 9/6, p. 184), several readers have written to us expressing surprise that there is still doubt as to whether affected birds have ingested preformed toxin or whether the toxin was produced in their intestinal tracts.

We believe that waterfowl and other aquatic birds almost always acquire the disease from the consumption of toxin-containing foods. The confusion may have arisen from published evidence of toxin production in the crops of pheasants. The crop serves as an incubator where *Clostridium botulinum* can reproduce when suitable nutrient materials are present. Presumably this could occur in other species of birds that have distinct crops.

Some investigators, particularly the Russians, have proposed a toxico-infection theory of botulism in man. This theory, which holds that a sublethal dose of ingested toxin may become lethal as *C. botulinum* grows within the intestinal tract, apparently has few supporters in this country.

Observations on experimentally intoxicated ducks suggest that the fate of the bird depends largely on the amount of toxin administered. A median lethal dose of actively growing culture of *C. botulinum* can be measured quite readily in ducks and, under a particular set of conditions, the results are reproducible. One would expect that a dose large enough to kill half of a group of birds would, at least sometimes, kill most of them, if the intestinal tract were a favorable place for toxin production. Moreover, in view of the wide dis-

tribution of *C. botulinum* spores, many of which must be consumed by waterfowl each time they feed, it seems unlikely that botulism outbreaks would occur primarily in the warmest summer months, if appreciable amounts of toxin were formed within a bird's body.

While we would not say that it never happens, we doubt that botulism resulting from toxin formation in the gut occurs commonly in aquatic birds.

Wayne I. Jensen, Chief
Section of Wildlife Disease Research
Bureau of Sport Fisheries and Wildlife
Brigham City, Utah

Side effects

In regard to the article on fog dispersal (SN: 8/30, p. 165): Have the learned investigators at Cornell given the slightest thought to what the widespread broadcasting of salt (NaCl) might have on the ecology as well as economic status of the surrounding area? Money can certainly accomplish many things and raise all sorts of hell with endeavors other than those of special interests.

Ray Gotthold
Belmont, Calif.

Well done

The article on the National Accelerator Laboratory and on its Aspen Summer Study (SN: 8/16, p. 128) was very well done. I appreciate the consideration that you have given to our work.

Edwin L. Goldwasser
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Batavia, Ill.

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