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BASIC LABORATORY PROCEDURES IN DIAGNOSTIC VIROLOGY by Mary L. Christensen, *Northwestern Univ. Medical School, Evanston, Illinois*. The first part of this book discusses viral isolation and identification for diagnosis of viral infections. Included are methods and instructions for the isolation in cell culture of virus from clinical specimens, detection of virus in cell cultures, and identification of viral isolates. Part Two presents serologic methods for the diagnosis of viral infections including preparation of titration of reagents and complement-fixation test procedures. '77, 128 pp., 4 il., 23 tables, \$9.75, spiral (vinyl)

PHYSICAL PERFORMANCE, FITNESS, AND DIET by Donald R. Young, *NASA Ames Research Center, Moffett Field, California*. Foreword by Charles G. Wilber. Current concepts regarding the importance of exercise and diet in health and disease are covered in this comprehensive review of research concerning nutrition and physical performance. Topics addressed include minimum feeding concepts, performance and body composition, insulin mechanisms, growth hormone, and the extreme nutritional states of obesity and chronic food deprivation. '77, 128 pp., 16 il., 13 tables, \$9.75

BIOCHEMICAL METHODS IN MEDICAL GENETICS by Sally Kelly, *New York State Dept. of Health, Albany, New York*. This book explores the biochemical problems of diagnosis, treatment and control of heritable metabolic diseases. The recognition of the metabolic diseases in which laboratory tests provide the critical biochemical facts is emphasized. The author describes the minimum laboratory criteria for diagnosis, guides laboratory test performances, and simplifies interpretation of results. '77, 352 pp., 28 il. (14 in color), 13 tables, \$17.50

THE EVOLUTION AND CHEMISTRY OF AGGRESSION by Delbert D. Thiessen, *Univ. of Texas, Austin*. Foreword by I. Newton Kugelmass. Emphasis is placed on understanding the biochemical processes underlying aggression. The author explores the phylogenetic history of aggression, outlines several genetic correlates of aggression, examines hormonal control, reviews the significance of chemosignals, and discusses brain biochemistry. '76, 232 pp., 38 il., 27 tables, \$18.50

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LETTERS

Diesel Engines and Air Pollution

Frederick J. Hooven's encomium to the diesel-powered automobile (Letters, 2 Sept., p. 940) as a solution to automotive air pollution is puzzling in several respects. First, he fails to deal with the acknowledged problem of aldehydes and particulate emissions, and he might well have added "malodors" to this list. Second, he makes the statement that the diesel does not require "precise adjustments to maintain its low level of emissions" when in fact frequent precise adjustment and exquisite cleanliness of the fuel jets are the key to correct engine performance. Third, he pooh-pooh's the detrimental effect on air quality of quadrupling NO_x emissions from mobile sources by hypothesizing that gasoline-powered autos will probably do that poorly after a brief period of service because of inadequate engine maintenance. This may be correct, but the solution would seem to be periodic vehicle inspection and repair of defects in the same manner as most states now require inspection and repair for safety equipment.

The nature and amount of emissions from a poorly maintained diesel automobile are not mentioned, nor are the detrimental effects of incorrect engine operation (lugging) discussed. My studies of emissions from standard- and catalytic-muffler-equipped diesel buses show clearly that good maintenance practices are as essential for diesel as for gasoline engines if vehicles are to operate with minimum air polluting emissions.

Diesel-powered automobiles may be the apple of Frederick Hooven's eye, but they are not the solution to air pollution from mobile sources.

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Basic Research Productivity

William D. Carey's editorial on the future of basic science (26 Aug., p. 825) calls attention to the right problem at the right time. First, it is quite evident that whether or not the science community thinks the budget for basic science should be increased 100 percent or even 10 percent (above the inflation rate), the likely prospect is for flat or slightly decreasing budgets.

What credibility can the science community—including the economists, social scientists, and management scientists—have, when we show so little confidence in the strategies we recommend for other sectors of the economy. What about an honest attempt at a scientific, zero-based budget for U.S. basic research? If one can look for a radical reform of the welfare system with the incentives to work, why not a complex, productivity-related formula for funding academic units? If the Department of Defense can look hard at increasing efficiency to get more bang for the buck, is it not fair that we ask of ourselves that we produce more papers and graduate students for the same dollars (more miracles per megabuck)?

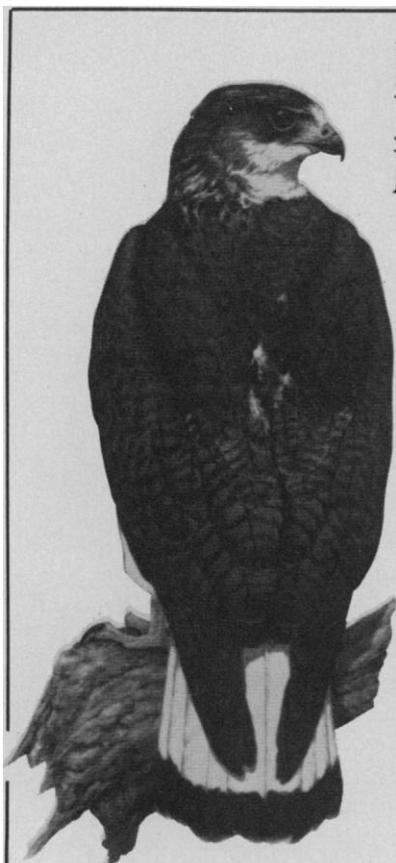
I recommend that AAAS meeting planners move to second Carey's motion by scheduling a symposium on zero-based science budgets, alternative funding mechanisms, and increasing efficiency of the science machine. Moreover, if we have the courage of our convictions, the science community should encourage congressmen Teague or Thornton and senators Kennedy, Stevenson, or Proxmire to schedule hearings on appropriate levels and alternative models for basic research funding.

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Drinking Water: New Health Problem

Coal tar and asbestos have long been identified as powerful carcinogens. Paradoxical as it may seem, it has recently been found that a commercial coating made from these two carcinogenic materials has been applied to the interior surfaces of thousands of municipal water tanks and pipelines used for drinking water throughout the country for many years, with federal approval. Many cast-iron water mains have been dipped in coal tar. Asbestos cement pipes are also in use.

This situation surfaced at Pascagoula, Mississippi, in June 1977 because of taste and odor complaints and is being intensively studied by federal authorities. The Environmental Protection Agency (EPA) and the Food and Drug Administration have overlapping cognizance, and their respective roles were still not resolved as of early September. The EPA lab at Athens, Georgia, has shown that 17 different organic chem-



MANUAL OF NEOTROPICAL BIRDS Volume I

Spheniscidae (Penguins) to
Laridae (Gulls and Allies)
by **Emmet R. Blake**, Emeritus
Curator of Birds at the Field
Museum of Natural History

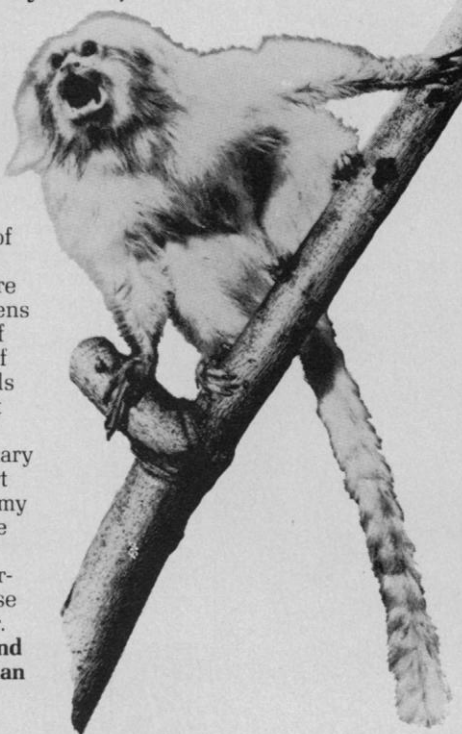
This is the first in a four-volume work that will treat 3,300 species and some 8,300 subspecies of avifauna to be found in Central and South America, the continental islands, and adjacent waters (Mexico, the West Indies, Galapagos, and the Falkland Islands excepted). Volume I covers 600 species and about 1,500 subspecies of 48 families. This comprehensive and authoritative manual provides the fullest information on the birds of a region unsurpassed in the diversity of its avian fauna and which contains more than one-third of the world's bird species. Handsomely illustrated with 67 beautifully detailed and specially reproduced wash drawings, a section of superb plates, several in color, and 237 maps. 704 pages. 7" x 10". \$50.00

The
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PRESS

LIVING NEW WORLD MONKEYS (Platyrrhini)

With an Introduction to
Primates Volume I
by **Philip Hershkovitz**,
Emeritus Curator, Mammal
Division, the Field Museum
of Natural History

Long-awaited, this is the first volume of two in an encyclopedic work which is the result of eleven years' study of more than 3,100 museum-preserved specimens and primate fossils, and observation of hundreds of animals in captivity and of thousands in the wild. The author deals first with primates as a taxonomic unit and with New World monkeys from comparative anatomical and evolutionary points of view. The most extensive part of the volume is devoted to the taxonomy and biology of the family Callitrichidae (marmosets, tamarins) and the family Callimiconidae (callimico). "...a masterpiece...A 'classic,' a scholarly enterprise of grand proportions." —Ronald Singer. Lavishly illustrated with 520 figures and 7 color plates. Bibliography of more than 2,500 published works. Gazetteer. 1,100 pages. 8 1/4" x 11 3/4". \$75.00 till 12/31/77; \$80.00 thereafter



icals from the tar have appeared in samples of the water taken from the storage tank at Pascagoula, in the parts-per-billion range—some of them chlorinated benzene-type compounds, and nearly all of them toxic.

By coincidence, this problem came to light just after publication of the National Academy of Sciences' *Summary Report on Drinking Water and Health*, issued on 23 May 1977. The report, commissioned by EPA under the Clean Water Act at a cost of \$1 million, strongly condemns both coal tar and asbestos as carcinogens, but does not emphasize that both are widely used construction materials in contact with potable water.

Resolution of this problem will be difficult because of the great cost of potential recoating and replacement of tanks and pipes, the large commercial interests and federal responsibilities involved, the strong scientific findings of a cancer hazard, and the federal obligation to ensure clean water and food.

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Medical School Tuition

In a quote in the briefing "Future doctors balk at bill" (News and Comment, 9 Sept., p. 1063), Jack O'Dowd, Northwestern University's director of university relations, appears to lay blame for the university's "... bungling the original announcement" of the rise in medical school tuition, and the subsequent lawsuit filed by the students, on the administration of the medical school. As in most universities, Northwestern's central administration makes the budgetary decisions. Individual schools have no more than advisory input. When the dean of the medical school went on vacation, he was told that no decision regarding tuition had been made. While he was on vacation, the university administration increased the tuition at the medical school by 57 percent and told the students about it by way of a press release. It is clear to the students that the medical school administration was opposed to the enormous tuition increase. The blame for the bungling of this affair and the subsequent lawsuit lies with the university administration, not with that of the medical school.

PAUL BROWNSTONE

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