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LIQUID SCINTILLATION STANDARDS

Four sets, two individual scintillation standards, and two standardized solutions for internal calibrating are available.

SCINTILLATION STANDARDS SETS

Consist of calibrated samples containing PPO and POPOP in toluene. Volume of each standard is 15 ml, sealed in a 20 ml low-activity glass vial. Packaged in foamed-plastic holders which double as storage racks. Stated activities within $\pm 3\%$ of true values. Certification of each standard supplied with each set.

Unquenched C^{14} and H^3 Set. Consists of unquenched samples of carbon-14 and tritium labelled toluene plus a toluene blank. Model 180040 Set, complete.....\$65.00

Quenched H^3 and C^{14} Sets. Accurately assayed standards. Each has different counting rate due to quenching.

Model 180050 Tritium Set (5 standards, 1 x 10^4 dpm nominal each).....\$65.00

Model 180060 Carbon-14 Set (6 standards, 2 x 10^5 dpm nominal each).....\$ 75.00

Model 180070 (both sets).....\$125.00

Quenched S^{35} Set. Six accurately assayed quenched standards.

Model 180080 Sulfur-35 Set (6 standards, 4 x 10^5 dpm nominal each).....\$80.00

INDIVIDUAL STANDARDS

P^{32} and S^{35} Scintillation Standards. Furnished in flame-sealed, 20 ml low-activity glass vials. Stated activities within $\pm 4\%$ of true values. Individual certification supplied with each standard.

Model 188350 Phosphorus-32 (15 ml, 2 x 10^4 dpm nominal).....\$40.00

Model 188240 Sulfur-35 (15 ml, 4 x 10^5 dpm nominal).....\$30.00

Standardized Solutions of Toluene- C^{14} and Toluene- H^3 . For internal calibration in liquid scintillation counting. Supplied in flame-sealed glass ampoules. Stated activities are within $\pm 2\%$ of true values. Individual certification supplied with each standard.

Model 188270 Toluene- C^{14} (5 ml, 3 x 10^4 dpm nominal).....\$20.00

Model 188280 Toluene- H^3 (5 ml, 5 x 10^4 dpm nominal).....\$20.00

Detailed specifications are available on request, as are current schedules containing complete radiochemical listings and information. Please write, or call 312 827-4456 collect.

NUC-G-4-271



NUCLEAR-CHICAGO

A DIVISION OF NUCLEAR-CHICAGO CORPORATION
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current "shrouds around LSD" (Letters, 18 Nov.) may wish to reconsider nitrous oxide for provoking sensory perturbations. Nitrous oxide is not likely to compete with LSD or mescaline as an illegal chariot to Parnassus, because of its inconvenient form (compressed gas in cylinders), variability of action, and unpleasant side effects at times.

ARTHUR CHERKIN

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Reference

1. J. Davy, *Memoirs of the Life of Sir Humphry Davy, Bart.* (Longman, Rees, Orme, Brown, Green, and Longman, London, 1836), pp. 98-99.

Save Enough Redwoods!

"Save-the-Redwoods" does not imply simply a need to preserve a species as interpreted by Fahnestock (Letters, 2 Dec.). The Save-the-Redwoods league was founded with the idea of purchasing and setting aside (by means of contributions from individual donors and matching funds from the state of California) remnants of the once extensive virgin redwood forest for the enjoyment of future generations. A single statistic does not tell the whole story: 50,000 acres (20,250 hectares) of virgin redwoods in existing state parks may appear to be a lot of acreage, but it is a pitifully small fraction (about 3 percent) of the existing coastal redwood stand in California and it is insufficient to absorb in reasonable fashion the hordes of people who visit the groves in increasing numbers each year. A visit to a redwood forest is, after all, meant to be a unique and vital experience, not the museum experience which Fahnestock advocates by preserving isolated groves.

The redwood is remarkably viable, it is true. However, its vaunted ability to survive storm, fire, and flood has not yet met its full measure in the locust-like depredations of man. Unfortunately, California's existing Forest Practices Act still lacks the teeth required to make operators comply with a minimum of good logging practices. The tendency today to log on ever steeper slopes with heavy tractors and machinery can only lead to a decrease in slope stability and accelerated erosion and runoff.

It cannot be stated categorically that



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a grove will flourish and regenerate independently of its surroundings, as suggested by Fahnestock. Steep intervening ridges may be of little avail against weather modifications which are induced by regional deforestation.

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Rare Birds Identified

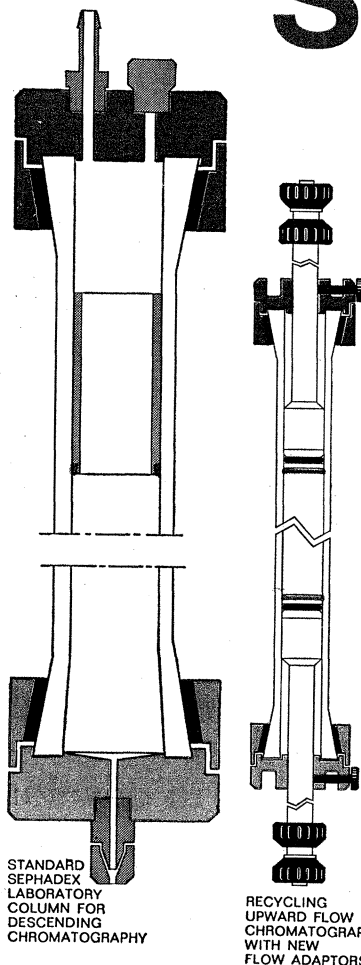
It was kind of *Science* to include Ripley's letter, "Save the Endangered Birds," (11 Nov.). It was most unfortunate, however, that a Mallard duck was chosen to illustrate the point of his letter. The Mallard is one of the most abundant waterfowl in the world, and the fact that its numbers decline somewhat during one breeding season does not mean that it is about to become extinct. This is not the type of bird for which the International Council for Bird Preservation is seeking aid, and if anyone seriously thought we were worrying about saving the Mallard, we would become a laughing stock. One biologist asked me, "What will you try to protect next, the Starling?"

The sort of birds with which the I.C.B.P. is concerned are the California Condor, of which about 50 remain in southern California; the Horned Guan (*Oreophasis derbianus*), very rare and local in cloud forests in southern Mexico and Guatemala; the Atitlán Grebe (*Podilymbus gigas*), of which a small population lives on Lake Atitlán, Guatemala; the Hawaiian Crested Honeycreeper (*Palmeria dolei*), very rare and restricted to Maui Island, Hawaii; the Japanese Crane, of which less than 200 remain in Japan plus a small population in Manchuria; the South Island Saddleback (*Creadion carunculatus*), restricted to a few tiny islets off South Island, New Zealand; the Cahow or Bermuda Petrel, breeding in very small numbers in Bermuda; the Spanish Imperial Eagle, reduced to about 100 in Spain with perhaps a few pairs in North Africa; and the Imperial Parrot (*Amazona imperialis*), confined to the high mountain forest of Dominica, West Indies.

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K 25/100 "Jacketed"	2.5x100	S	S	O
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