

may be many times more effective than decay in reducing the amount of fallout activity. Certainly the weather in that period was most favorable to such reduction.

The New York State Department of Health receives reports of cancer cases from physicians. A recent review of these records for residents of counties of Albany, Schenectady, and Rensselaer (where Troy is situated) who were under 2 years of age in 1953 revealed no cases of thyroid cancer. There have been no deaths from thyroid cancer in children from these areas since 1953. Taken together, case reports and death certificates identify approximately 90 percent of the cancer cases occurring in New York State. A study of the files of a surgeon (John C. McClintock) who does most of the thyroidectomies in the Albany-Troy-Schenectady area revealed one thyroid carcinoma in a Troy child who was 20 months of age in April 1953. This is, as Lapp points out, the number to be expected in the population at risk.

While a continuing surveillance of this age group will be maintained by this department, it seems most unlikely that an event which has resulted in no increase of thyroid carcinoma during the ensuing 9 years will lead to such an effect in the future.

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Population Biology

Ehrlich and Holm in their article "Patterns and populations" [*Science* 137, 652 (1962)], finding life as a whole to be too complex to be conveniently programmed for a computer, conclude that the only biological unit worth considering is the individual organism, and at one moment of its existence. Even so, there is some doubt as to whether head and tail of the same individual form a congruent whole!

It is easier to get exact quantitative data from a dead animal than from a live one, so we need only take the final step and declare life itself to be a useless concept. This inability to nail life down, once and for all, in a statistical formulation is perhaps analogous to the problem behind the "uncertainty principle" in physics.

Since human culture began it has been obvious to scientist and layman

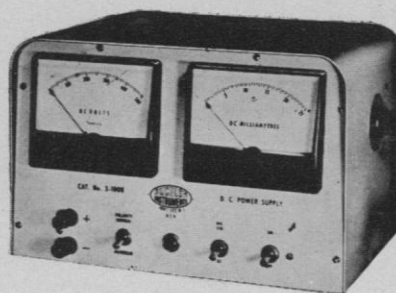
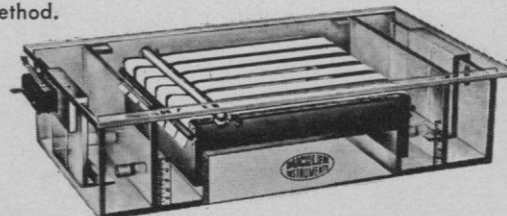
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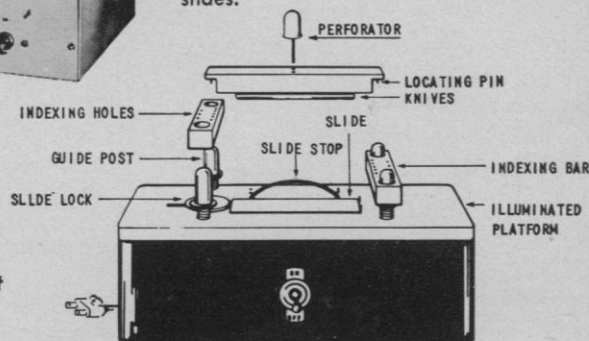
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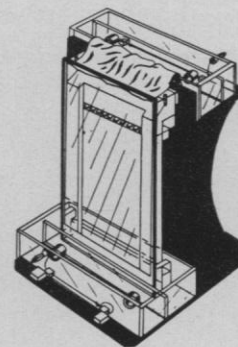
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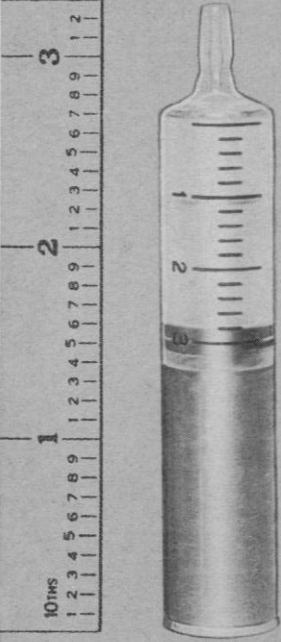
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alike that the vast majority of living things fall into well-defined units, for which the generally accepted name is "species." Darwin showed that these species have evolved and are evolving. It then became clear why many species vary to some extent from place to place or, as seen in the fossil record, from time to time. Given the conditions on this planet and the genetic properties of living organisms, thousands, and indeed millions, of these essentially discrete and genetically self-contained units have evolved. We may as well continue to call them species, for to deny their existence is as futile as it would have been for Thoreau to deny the existence of Walden Pond because he found it not exactly the same at all times and places.

DEAN AMADON
 American Museum of Natural History,
 New York, New York

Amadon's approach to problems of population biology emphasizes the need for unemotional evaluations of the concepts in this field.

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Overtrimmed Cover Picture

This note may clear up some confusion which may arise from a perusal of the cover illustration on the 13 July 1962 issue of *Science*. The drawing shows a portion of the follicular epithelium which surrounds a developing oocyte of *Drosophila melanogaster*. A corner of a follicle cell nucleus is shown, as are various cytoplasmic organelles including mitochondria and arrays of endoplasmic reticulum (enclosing lipoidal droplets). To the right of the basement membrane of the follicle cell lies a segment of the epithelial sheath (characterized by its smooth muscle fibrils) which encloses the follicle. To the right of this lies a longitudinally sectioned trachea. The magnification is 27,000. The confusion with respect to the caption arises from the fact that only the right-hand half of a larger drawing was used for the cover illustration.

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