no A.B. degree, hence should not be listed as "not accepting" psychology to satisfy the science requirement it does not have.

(b) Similarly the University of Florida, although it gives the A.B. degree, has no science requirement in connection with that degree.

(c) At Rutgers and Vanderbilt Universities, the A.B. laboratory sciences are placed in the work of the Junior Division. Psychology is in the Senior Division, where it is accepted as a laboratory science.

These recent changes necessitate corrections in the material published by Winter. The tabulation now stands as follows:

(1) Fifteen of the original 75 institutions have no laboratory requirement for the A.B. degree. (One of these, the Massachusetts Institute of Technology, does not give the A.B. degree.)

(2) Twenty-two of the remaining 60 institutions (37 per cent.) now accept psychology to satisfy the A.B. laboratory science requirement.

(3) Thirty-six of the 60 institutions (60 per cent.) do not accept psychology to satisfy the laboratory science requirement.

(4) Two consider it too advanced for this basic requirement.

The increase from 29 to 37 per cent. acceptance in 5 years may be taken as evidence of a definite trend toward the inclusion of psychology among the laboratory sciences which satisfy the requirements for the A.B. degree.

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AN EXPANDING UNIVERSE AN INDETERMINATE PROBLEM

CERTAIN fundamentally important considerations in connection with this and other problems appear to have been overlooked or neglected in many writings and discussions of questions in ultra remote astronomy.

Nothing can possibly be known or ascertained about an object one hundred million light years distant from the earth, later than conditions as they were one hundred million years ago. It is wholly unwarrantable to assume that no material changes have taken place in that immensely long period of time and that conditions that we *observe* now are the same as those that *exist* at present. In other words, there is a complete absence of any certainty that changes which might entirely invalidate any deductions or conclusions based on this assumption have *not* taken place since the date of the latest available evidence.

For two objects distant, respectively, one hundred million and two hundred million light years from us, in the same region of the sky, we have no basis for considering their relative contemporaneous positions and other conditions except upon an assumption that no relative changes had taken place, up to one hundred million years ago, during the preceding one hundred million years. Such an assumption is manifestly quite untenable, or at least problematical.

The light-year, as the unit of measurement for great astronomical distances, is really *one yearly light mileage*. It might better be designated one Y L M.

The problem of whether the universe is "expanding" *now* or not is something like trying to determine several unknown quantities from a less number of independent equations than the number of values sought. The problem is not solvable: It is indeterminate.

JOHN MILLIS

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NICOTINIC ACID

THE reaction of the public to hastily reviewed or hastily read scientific articles, especially those relating to diets, vitamins or tumor growth, is something that deserves consideration. A good example may be pointed out in regard to nicotinic acid. The only reason for changing its name to "niacin" was because of the unfortunate linking in the lay mind of nicotinic acid and tobacco. In regard to hastily reviewed articles, one news release headlined an article dealing with the fortification of white bread by nicotinic acid—"Tobacco in Your Bread"! The lay response to this article may well be imagined.

The recent work dealing with cancer induced by the feeding of butter-yellow and modifications by specific diets is definitely newsworthy and probably headed for popularized review. I do not believe that any amount of explanation will suffice to separate "butter-yellow" from "butter" in the lay mind, and I therefore would like to enter a suggestion that steps be taken to change the name of "butter-yellow" to a form that does not have such an undesirable connotation.

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BIOGRAPHY OF THE EARTH

IN my recent popular book, "Biography of the Earth" (Viking Press, 1941), representing an attempt of synthesis of to-day's astronomical, geophysical, geological and paleobiological knowledge concerning the history of our globe, I have used to a large extent the results of Professor Charles Schuchert, of Yale University, on the distribution of waters and lands in past geological epochs. In doing so I was acting under the conviction that the published results of any scientific research become an intrinsic part of science, and can be used freely for the purpose of further study or popularization. Professor Schuchert informs me, however, that in this case the situation is different, since the results collected in his paleogeographical

maps were copyrighted. In view of this fact, I am extremely sorry for having committed a mistake of using Professor Schuchert's interesting and informative results without first consulting him on that matter, and deeply apologize for hurting, though unwillingly, his feelings of ownership in that matter.

G. GAMOW
THE GEORGE WASHINGTON UNIVERSITY

SPECIAL CORRESPONDENCE

FIELD MUSEUM PALEONTOLOGICAL EXPEDITION TO HONDURAS

A PALEONTOLOGICAL expedition of Field Museum of Natural History worked in the Republic of Honduras from early November, 1941, until April, 1942. The personnel consisted of Paul O. McGrew as leader and Albert A. Potter, of the Nebraska State Teachers College, Chadron, Nebraska, as assistant. Señor Eliseo Carabantes was employed during most of the work and various other Honduran assistants were engaged from time to time.

The object of the expedition was to collect fossil mammals. Particular interest in fossils from Honduras arises from the geographic position of that country. Practically nothing is known of fossils from tropical America, and answers to several perplexing paleontological problems might be gained from study of fossils from that region. Data bearing on the accurate dating of the emergence of the Panamanian land bridge, on the dating of the Tehuantepec marine portal, on the still-existing environmental barrier between the two continents of the Western Hemisphere, on the value of homotaxis in correlation between deposits in northern and southern latitudes and on other problems might well be expected.

Three months were spent in the early Pliocene deposits of the Departamento de Gracias. These beds were worked briefly in 1937–38 by an expedition from the University of Chicago and previously reported upon.[1] Here a large collection of the dwarfed horse, *Pliohippus hondurensis,* was obtained. In addition fossils of dog, mastodon, rhinoceros, deer, camel and some reptiles were collected. All forms found were definitely of northern origin.

In the Departamento de Copan a deposit was discovered which produced an interesting and beautifully preserved collection of late Pleistocene mammals. This site was successfully quarried. Among the specimens collected were *Toxodon, Glyptodon* (?) and *Megatherium* as immigrants from South America, and *Equus, Camelops* (?) and *Felis concolor* of North American origin. Of *Megatherium* an essentially complete skeleton was obtained. The *Toxodon* is of particular interest, as it is the most northern occurrence of this group of South American mammals so far recorded. In 1886 Leidy reported a lower molar and a broken incisor from Nicaragua. Temporary conditions made it impossible to complete excavation in this Pleistocene quarry, but it is fervently hoped that in the not-too-distant future work there may be resumed.

Because of the uncertainty of water transportation, practically all the material was stored in Guatemala, where it will probably have to remain until the termination of the war. Consequently, its study and the determination of its bearing on the above-mentioned problems will necessarily be delayed. It may be stated, however, that the Pliocene fauna supports the conclusions previously reported and that the Pleistocene fauna should throw new light on our problems.

Sincere thanks are due to the government and people of Honduras, who cooperated in every possible way to make the expedition a success.

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FIELD MUSEUM OF NATURAL HISTORY

QUOTATIONS

SOME SIGNIFICANT FINDINGS OF THE EXPERIMENT STATIONS IN 1941

THE preparation of the annual report to Congress by the Office of Experiment Stations on the work and expenditures of the agricultural experiment stations for the fiscal year ended June 30, 1941, has brought together the usual progress reports of the more than 3,000 federal grant projects active at the stations during that year. It is now expected that in due course these activities will be discussed in that report, but on an abbreviated basis in conformity with the national need and policy to conserve both paper and the printing funds. In the meantime the opportunity is being availed of to place on record brief statements of a few of the more significant accomplishments. These examples have been selected as representative of the subject matter fields covered in station research and the varied agricultural conditions and problems of the states and territories. They are based on statements as to the work done and the progress made under each active federal project, prepared by project leaders and made available to the office by the station directors. It needs scarcely be emphasized that they

[1] E. C. Olson and P. O. McGrew, *Bull. G.S.A.*, 52: 1219–1244, 1941.