

TABLE I

Showing acclimatization to alcohols. The animals designated "treated" were either kept in a weak solution of methyl or of ethyl alcohol for a number of days, or were exposed to an 8 per cent solution of ethyl alcohol for 5 minutes each day for several days. The results shown in the table were obtained by exposing for 20 minutes equal numbers of treated and control tadpoles to 11 1/9 per cent. methyl or 8 per cent. ethyl, depending on the alcohol to which the treated animals had been exposed, after which all were transferred to water and the number that recovered noted.

Alcohol used for acclimatization	Concentration of alcohol used to test for acclimatization	Number of tadpoles used in the experiment		Number of tadpoles that recovered		Percentage of tadpoles that recovered	
		Control	Treated	Control	Treated	Control	Treated
Methyl	11 1/9 per cent. methyl	107	107	11	43	10.3	40.2
Ethyl	8 per cent. ethyl	207	207	44	102	21.3	49.3

mals did become acclimated. The treated protozoa generally lived considerably longer than the controls. Yet of the two strains of *Stentor* employed, one, while given exactly the same treatment as the other, showed little or no indication of acclimatization and led the author to remark (p. 611), "the fact that in these experiments some strains show little or no capacity for becoming acclimatized to alcohol although tried for long periods of time and with refined methods makes is questionable whether acclimatization takes place so readily and to so high a degree as is commonly supposed." Bills,² using *Paramoecium* and adopting a method similar to that of Daniel,³ maintains that he not only obtained no indication of acclimatization, but that the treated animals were even less resistant to alcohol than those that were untreated.

An attempt to find out whether *Bufo* tadpoles will become acclimated to ethyl and methyl alcohols led to the experiments presented below. The tadpoles were put in solutions of one per cent. and three fourths per cent. ethyl alcohol, and one per cent., one half per cent. and one fourth per cent. methyl alcohol for periods varying from three days to about three weeks. In addition a number were treated for five minutes each day for several days with an eight per cent. solution of ethyl alcohol, which brought about complete narcotization, and were then returned to water and allowed to recover. Finally all were tested for acclimatization by placing them along with controls into 11 1/9 per cent. methyl or 8 per cent. ethyl alcohol for 20 minutes, after which they were transferred to water and the number that recovered ascertained. The results, greatly abbreviated, are given in the accompanying table.

Examination of the table will show that 107 animals were subjected to weak methyl alcohol and later placed

for 20 minutes in a 11 1/9 per cent. solution of the same alcohol along with an equal number of controls, and that 43 of the treated animals recovered when they were transferred to water, while only 11 of the controls recovered. The table also shows that out of 207 tadpoles treated with ethyl alcohol, 102 recovered after having been subjected to an 8 per cent. solution of the alcohol for 20 minutes, and that only 44 out of a like number of controls recovered. These results seem to point unmistakably to an acclimatization.

Owing to the small number of animals used one can scarcely draw any conclusions as to the relative effects of the various solutions, and for this reason a detailed account of the experiments has not been given. The exact time required for acclimatization and the effect of one alcohol upon the ability of the tadpole to withstand another are also problems deserving of solution, but which the data at hand are too meager to solve. A more comprehensive set of experiments is contemplated, designed to throw light on these questions.

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THE AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

THE SECOND NASHVILLE MEETING OF THE ASSOCIATION AND ASSOCIATED SOCIETIES

PREPARATIONS for the second Nashville meeting of the American Association for the Advancement of Science and associated societies, which will occur from December 26 to 31, are very well begun. Adequate lodging accommodations will be available, partly in hotels and partly in the Ward-Belmont and Peabody dormitories. The general headquarters will be the Andrew Jackson Hotel, in which will be the registration and news offices and the science exhibition. Headquarters for the societies that are to meet with the association will be announced later. Scientific sessions will be held mainly in the buildings of Van-

² Bills, C. E., "Some Effects of the Lower Alcohols on *Paramoecium*." *Biol. Bull.*, vol. 47, pp. 253-264. 1924.

³ Daniel, J. F., "Adaptation and Immunity of the Lower Organisms to Ethyl Alcohol." *Jour. Exp. Zool.*, vol. 6, pp. 571-611. 1909.

derbilt University and of the Peabody College for Teachers.

Announcement may now be made of the local committees that are in charge of preliminary arrangements, which are constituted as follows:

General Chairman of Nashville Committees

W. S. Leathers, M.D., professor of preventive medicine and public health, Vanderbilt Medical School.

Committee on Arrangements

John W. Barton, *chairman*; vice-president of Ward-Belmont College.

H. A. Webb, *secretary*; professor of chemistry, George Peabody College.

L. C. Glenn, professor of geology, Vanderbilt University.

G. Canby Robinson, dean and professor of medicine, Vanderbilt Medical School.

J. T. McGill, professor emeritus of organic chemistry, Vanderbilt University.

A. E. Parkins, professor of geography, George Peabody College.

W. N. Porter, convention secretary of the Nashville Chamber of Commerce.

J. M. Breckenridge, professor of chemistry, Vanderbilt University.

G. R. Mayfield, associate professor of German, Vanderbilt University.

A. F. Ganier, assistant engineer, L. & N. Railroad.

A. J. Dideoct, business manager, George Peabody College.

H. H. Shoulders, president of the Nashville Academy of Medicine.

E. L. Bishop, State Health Commissioner of Tennessee.

A. W. Wright, assistant professor of pathology, Vanderbilt Medical School.

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Alf Williams

Each section of the association has, as usual, a local representative to look after the needs of the organizations that are related to the section. A list of the names of the local representatives is given below.

Representatives for Sections

Section A (Mathematics), C. M. Sarratt.

Section B (Physics), C. R. Fountain.

Section C (Chemistry), L. J. Bircher.

Section D (Astronomy), James McClure.

Section E (Geology and Geography), L. C. Glenn.

Section F (Zoological Sciences), E. E. Reinke.

Section G (Botanical Sciences), J. M. Shaver.

Section H (Anthropology), W. D. Weatherford.

Section I (Psychology), Joseph Peterson.

Section K (Social and Economic Sciences), C. B. Duncan.

Section L (Historical and Philological Sciences), H. C. Sanborn.

Section M (Engineering), W. H. Schuerman.

Section N (Medical Sciences), P. D. Lamson.

Section O (Agriculture), K. C. Davis.

Section Q (Education), S. J. Phelps.

For organizations not related to any particular section, C. P. Connell.

Correspondence about local arrangements for the societies that are to take part in the Nashville meeting should be addressed to Dr. W. S. Leathers, general chairman of local committees, American Association for the Advancement of Science, Vanderbilt University, Nashville, Tenn.

BURTON E. LIVINGSTON,

Permanent Secretary