

ments. There is an outward movement of the wings at each stridulation, and as the movement reaches maximum position, membranes in the wings vibrate. The graph shown in Fig. 2 indicates the pitch of the stridulation in reference to its periodicity. As the pitch was determined from keys on the piano some variation could be expected as the key indicated was chosen as being nearest to the pitch. It will be noted that a range of one octave on the piano was covered by a change in temperature from 59 degrees to 85 degrees. From the data it is evident that the mechanism that moves the wings as well as the membranes in the wings are very sensitive to temperature, and response to temperature changes is of marked uniformity.

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THE RELATIVE EFFECTS OF ANOXIA

BECAUSE of recent interest shown in the problem concerning the relative effects of anoxia upon old and young animals, a reference by Moreland¹ to the work of Buffon, of LeGallois and of Edwards² should be brought to more general attention. Interest in the work of these early investigators lies in the fact that many recently reported results are substantially in agreement with results reported 125 years ago.

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CALENDAR REFORM AND 364-DAY YEARS

IN SCIENCE of February 20 it is stated that present calendar defects make the arrangement of schedules for industry and education difficult and temporary only, also that there can be no doubt about what would happen in calendar reform, if scientists had their way. A large percentage (76 per cent.) gave affirmative answers to the question whether or not a revised world calendar of 12 months and equal quarters should be adopted.

Some years ago when the Eastern Orthodox Churches changed to our Gregorian calendar, a clause was added expressing hope that Western nations might soon be ready to improve that calendar.

The World Calendar involves the interpolation each year of a so-called *Year day* or *extra Saturday*.

In this connection the possibility of making the astronomical year coincide with the calendar year might be considered. If the change to a calendar year with 12 months and equal quarters is made, the

first years might be assigned only 364 days, omitting the disputed *Year day*. After eight such years, the winter solstice (occurring now about December 21) would coincide with the *Year day*. Thereafter the calendar quarters would correspond approximately to the astronomical quarters. The period of eight years would give the world time to experience the greater convenience of the new calendar. Before the end of that period many people might come to favor the new plan who now have never heard of it or are skeptical.

January 1, 1943, comes on a Friday; two years later, on a Monday. With ideas changing from national to international along many lines, perhaps we may now also think about the coming world calendar. To take away a day a year need be no more disturbing than the present adding a day in leap years. We have recently witnessed the ease with which the whole United States can drop or add an hour on a specified day.

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A STUDY OF FAUNAL DISTRIBUTION

I SHOULD like to take the opportunity of acknowledging in SCIENCE the generous support that E. P. Mumford, of Jesus College, Oxford, and I have received in America in connection with a cooperative study of faunal distribution with particular reference to oceanic islands. This comprehensive study of island populations seeks to promote a wider approach to the basic problems of the origin of species. It was initiated at Oxford in October, 1938, with the aid of grants from the Higher Studies Fund, the Royal Society and the British Association for the Advancement of Science. Since the war, the work has been carried on by Mr. Mumford as a member of the faculty at Stanford University, California, in association with Oxford, with the aid of supplementary grants from the Carnegie Corporation of New York, the National Academy of Sciences, the American Philosophical Society, the American Association for the Advancement of Science, the Society of Sigma Xi and the May Esther Bedford Fund, Inc. Mr. Mumford and I are deeply indebted to these organizations for their support as well as to the officers and trustees of Stanford University, where he has been extended every facility in the prosecution of his researches. Among the scientists at Stanford who have been most helpful, mention should be made of Dr. Ray Lyman Wilbur, chancellor of the university, Professor C. V. Taylor, Professor Eliot Blackwelder, Professor E. G. Mears and Dr. H. A. Spoeher, director of the Carnegie Institution there. Thanks are due also to Dr. Frank Aydelotte, of Princeton University, and the Rhodes Trust, for unfailing support.

In view of the importance of Anglo-American rela-

¹ F. B. Moreland, A thesis presented to the faculty of Vanderbilt University, 1936.

² W. F. Edwards, "On the Influence of Physical Agents on Life." Translated from the French by Hodgkin and Fisher and published by Haswell, Barrington and Haswell, Philadelphia, 1838.