New Zealand Dominion Museum from which we hold due acknowledgment.

(3) "The ship landed at the Antipodes and did great slaughter, especially among the Royal Albatrosses (*Diomedea epomophora*) which at that time were nesting. Many times the dinghy (the small boat from the ship) was so loaded with bodies that it almost sank" (letter to Dr. Ward).

This statement is exaggerated. Beck collected 17 specimens of the royal albatross, not at Antipodes but at the Chathams and in surrounding waters. Two of these have been given to the Cleveland Museum, two to the Museum of Comparative Zoölogy in Cambridge, two to the Bishop Museum in Honolulu and one to the Royal Zoological Museum in Stockholm, leaving ten in the American Museum, not an excessive number of an abundant species.

(4) "I also met someone in Norfolk Island who was residing there when the Expedition called, and he said that the Norfolk Island Parrakeet (*C. cooki* = *C. verticalis*) which was at that time common was almost wiped out and only during this last year or two have any been seen. This also happened to the Norfolk Island Robin" (letter to Dr. Ward).

The expedition secured two specimens of the parrakeet, as stated above, and 15 of the robin, a common species.

(5) "Numbers of skins of the nearly extinct Sand Plover (*Thinornis novaeseelandiae*) were obtained and also the skins of other very rare birds" (letter to Dr. Ward).

Our permit allowed us to collect 10 specimens of this plover; Beck took but six.

(6) "The Expedition, however, raided the Kermedecs without asking any permission. . . ." "A permit was obtained and they sallied forth raiding our islands, with the result we found some rare birds were exterminated, such as the Antipodes Parrakeet" (letter of E. V. Sanderson, Hon. Secy N. Z. Native Bird Protection Society to International Wild Life Protection Society, Cambridge, Mass.).

It is true that Beck landed on the Kermedecs before he had received his collecting permit. He passed these islands on his voyage from Fiji to New Zealand, from which they are distant about 600 miles. To have visited New Zealand first and then returned to the Kermedecs would therefore have added 1,200 miles to his journey. He was now so far south of the latitudes in which his vessel was built to cruise that every day added to the length of his journey increased its risks. He can perhaps, therefore, be excused if he made his collections in advance of the permit that was subsequently granted him. Beck's "raid" on the Kermedecs consisted in collecting 27 specimens of land-birds, none of them representing rare species.

Of the Antipodes parrakeet, as already stated, Beck collected 2 specimens. Since his visit to the island in 1926, Oliver ("New Zealand Birds," 1930) writes that this species is common there. Mr. Sanderson's charge that Beck exterminated this bird is evidently, therefore, unfounded.

This covers the more tangible charges of which we are aware. I am confident that if our critics had been more accurately informed of the results of our labors and more fully acquainted with our objectives, they would have been more discriminating in their accusations.

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NOVEMBER 20, 1934

THE WESTERN INVASION OF SAMIA CECROPIA

THE Cecropia moth is one of the most familiar insects of the United States, native from Canada to Florida, and west to Nebraska. When Packard's memoir on the Saturniidae was published (1914), it was not known in Colorado, that region being occupied by another species, *Samia gloveri,* which could be found from the foothills to the high mountains, and was common. When "The Zoology of Colorado" was published (1927) *S. cecropia* had invaded the eastern plains of that state, and was reported to be destructive in orchards. Soon after, it began to appear in other parts of Colorado, and now it is abundant at Boulder, as indicated by the numerous specimens brought to the university each summer. Since *S. cecropia* came in, I have not seen a single *S. gloveri.* The last actual date I have for *S. gloveri* is Estes Park, 1917, collected by Mrs. R. S. Tallant. I presume that *S. gloveri* still exists in the mountains, but it seems to have disappeared where *S. cecropia* has appeared. The specimens of *S. cecropia* do not appear to be hybrids, or at any rate are distinctly *S. cecropia* and not *S. gloveri.* It is probable that *S. cecropia* is twice or three times as abundant as *S. gloveri* ever was, but even so, it leaves plenty of room and plenty of food for the latter species.

Mr. Walter R. Sweadner, of the University of Pittsburgh, has just published (*Entomological News,* November, 1934) a very interesting article which seems to throw important light on this problem. He found, in Montana, that *S. cecropia* would mate with *S. gloveri* in a state of nature, and he even observed a male *S. gloveri* mated with a female *S. cecropia,* while a female *S. gloveri* a few feet away remained unmated. Raising various *Samia* hybrids, he found that the females were sterile, but the males would mate with one of the parent species and produce healthy offspring. Now it would seem that if *S. cecropia* invades the territory of *S. gloveri,* and is two or three

times as abundant as that species, and there is no obstacle to crossing, then the great majority of *S. gloveri* will mate with the wrong species, and the females so produced will be sterile. The males will usually mate with *S. cecropia*. Thus *S. gloveri* will disappear, but the critical examination of numerous specimens should show traces of *S. gloveri* ancestry. I offer this note at the present time because it is important that all entomologists living in the Rocky Mountain region should be aware of what is going on, and should collect specimens and make observations throwing light on a case which may well become classic in the annals of biology.

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THE RING STRUCTURE OF THYMIDINE

THE detailed structure of the nucleic acid molecule can not be formulated without knowledge of the ring structure of the constituent nucleosides, which, for nucleosides of the desoxyribose type, has not yet been established. In the case of ribose nucleosides, the furanoside ring structure has been shown by two methods, one based on methylation of the nucleosides, the other on the formation of a mono-trityl derivative. It was found that in the pure mono-trityl derivative, the trityl group is located on the primary alcoholic group of the sugar.

The latter method has now been applied to the study of the ring structure of thymine-2-desoxyriboside. A pure mono-trityl derivative was obtained and thus the conclusion is warranted that the desoxyribose nucleosides likewise have the furanose structure.

The properties of mono-trityl thymidine are as follows: m.p. 125°; $[\alpha]_D^{24} = +11.4°$ (in acetone).

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SOCIETIES AND MEETINGS

THE TENNESSEE ACADEMY OF SCIENCE

THE thirty-fifth meeting of the Tennessee Academy of Science was held in Nashville, Tennessee, at Vanderbilt University, on Friday and Saturday, November 30 and December 1, 1934. In cooperation with the academy, its affiliated societies, the Tennessee Ornithological Society and the Tennessee Barnard Astronomical Society, held their annual meetings and contributed papers to the program.

Classification of the papers shows: Anatomy 2, astronomy 2, bacteriology 1, biochemistry 3, biology 9, chemistry 2, forestry 2, geology 2, meteorology 1, ornithology 1, pathology 1, psychology 2, physics 2, physiology 2. The average attendance at the meetings was about fifty, but more than one hundred were present to hear the paper by William R. Amberson, of Memphis, on "Haemoglobin-Ringer, a New Substitute for Blood in Mammals," which was illustrated with motion pictures.

Dr. A. Richard Bliss, director of the Reelfoot Lake Biological Station, made a report on investigations at the station last summer. Secretary McGill made a report which showed a decrease of 10.6 per cent. in the membership of the academy since 1931 and an increase of more than 100 per cent. in the number of members that are fellows of the American Association for the Advancement of Science.

On Friday evening, Dr. Otto Struve, director of the Yerkes Observatory of the University of Chicago, Mrs. Struve and the president of the Barnard societies of Chattanooga and Knoxville were the guests at the academy dinner at 6 P. M. in the Andrew Jackson Hotel. At 8 P. M. Dr. Struve delivered the academy address in the auditorium of the War Memorial Building on the subject, "Modern Conceptions of the Universe."

The officers of the academy elected for the year 1935 are:

George M. Hall, professor of geology, University of Tennessee, Knoxville, *President;* Dr. William Litterer, Tennessee state bacteriologist, Nashville, *Vice-President;* John T. McGill, professor of organic chemistry, emeritus, Vanderbilt University, Nashville, *Secretary-Treasurer;* Jesse M. Shaver, professor of biology, George Peabody College, Nashville, *Editor of the Journal;* Miss Eleanor Eggleston, assistant librarian, Vanderbilt University, Nashville, *Librarian.*

JOHN T. MCGILL,
Secretary

THE SECOND QUADRENNIAL CONGRESS OF THE MATHEMATICIANS OF THE SLAV COUNTRIES

LAST summer there took place in Europe four quadrennial regional mathematical congresses—in Leningrad (end of June), Stockholm (mid-August), Athens (early September) and the congress of the Slav countries in Prague (September 23–28). The undersigned had the opportunity of attending the first and fourth, the last as delegate of the National Academy of Sciences. The strongest impression received was regarding the seriousness of the consequences of increasing governmental interference in all domains, science not excluded. Thus, for various political reasons, a num-