

further investigations of the kind, which are contemplated, it would be of interest to include a reference to the vitamins of these native foods, and also to record any occurrence of sugars. According to the late Mr. H. G. Smith, of the Sydney Technological Museum, sugar in any form was a great attraction to the aborigines, who prized highly such sweet rarities as "Eucalyptus manna" (raffinose from certain punctured eucalypts) and "lerp" (a protective secretion of Psyllidæ).

### Conservation in Canada

WRITING in the second issue of *Canadian Nature* (Whittemore Publishing Co., Toronto), Mr. Alan F. Coventry deals at length with an interesting experiment in conservation made on 88,000 acres at King Township, near Toronto. A survey of natural resources found the human population to be 4,600, and since 1840 the wild-life has decreased through human interference. The only large mammals left are deer on Holland Marsh; the imported European hare is one of the most abundant, first appearing in 1925, and the area seems to be the northern limit for winter survival of the imported ring-necked pheasant. Depletion of natural water supplies and need for reforestation are also noted. It is pointed out that the findings of the survey are applicable to a large part of southern Ontario, and similar surveys to the King Township investigation are recommended for other regions, so that the information gained can be used for conservation and for remedies to overcome increasing tendency towards flood and drought dangers. In no more than a century, about 2,500 acres have been abandoned as no longer fit for cultivation.

Conservation apparently plays a large part in the purpose of *Canadian Nature*, but there is no superabundance of sentimentality which deters the scientific naturalist from so many publications related to wild-life. An account is given of the Federation of Ontario Naturalists' Summer School at Camp Franklin, Parry Sound, and Prof. J. R. Dymond, of Ontario Museum, writes the "guest editorial", which is apparently to be a feature by notable authorities.

### Primitive Insects of South Australia

UNDER this title Mr. H. Womersley, entomologist at the South Australian Museum, in Adelaide, contributes a useful handbook (dated 1939) on the lower insects, or Apterygota, of the country named. Recognizing the need for a wider diffusion of accurate knowledge of the fauna and flora of this region, a committee, under the South Australian Branch of the British Science Guild, has undertaken the issuing of a series of handbooks. The absence of suitable reference manuals has been a real handicap to the progress of Australian biology, and those which have already been planned, or issued, are prepared gratuitously by South Australian biologists and geologists: they are printed and published by the State Government and are available for sale at low prices. Some fifteen of these handbooks have now been issued and others are in course of preparation. Mr. Womersley's work is the first of the series to deal with the Insecta and

comprises accounts of the orders Thysanura, Collembola and Protura. Well printed and arranged, its numerous clear and mostly original illustrations form a special feature that greatly enhances the value of this handbook. Increase in knowledge of these primitive insects has been rapid: thus in 1932 no Protura had been recorded from Australia, whereas eight species are now known. In 1926 only about forty species of Collembola were recorded from Australia, but now Mr. Womersley accounts for more than two hundred species. The handbook is set up by the Government Printer, Adelaide, and is good value for its price, 7s. 6d.

### The National Physical Laboratory

THE report for 1939 of the National Physical Laboratory covers 100 pages (London: H.M. Stationery Office. 2s. 6d. net). During the year there has been no great falling off in the experimental work done for, and the advice given to, industry both for immediate purposes and for long-range projects for opening up new possibilities, or in the testing of instruments or the maintenance of exact standards of measurement. But the War has raised new problems for solution which have come from the Services and the civil defence departments. Changes of staff to and from industry, to the Admiralty, the Air Ministry and the Forces have been more numerous than usual. Among the investigations of the year may be mentioned those on the physical properties of carbon steels, light aluminium and magnesium alloys, ship propellers, new aircraft, the reduction of sound transmission in buildings, electrical insulating materials and the propagation of ultra-short radio waves. Members of the staff have continued to give lectures on the work of the Laboratory at provincial centres, to serve on technical committees at home, and to attend international conferences on scientific and technical questions abroad.

### Life Expectancy in the Philippines

IN a recent communication (*Acta med. Philippina*, 1, 217; 1940) emanating from the Institute of Hygiene of the University of the Philippines, A. G. Sison, H. Lara, M. M. Herbosa and A. A. Lozano have compiled an instructive paper illustrated by 25 tables and 12 graphs of the life expectancy in the Philippines in 1902 and 1918. Their conclusions are as follows. The average expectation of life for both sexes in 1918 was 26.5 years, as compared with 17.91 years in 1902, which meant an improvement of approximately 9 years. For males the average expectation of life was 17.56 years in 1902 and 27.15 years in 1918, the corresponding increase being approximately 10 years. In 1902 the average expectation of life for females was 18.67 years and in 1918 26.38 years, an improvement of approximately 8 years. The complete expectation of life in the Philippines at birth for males was 11.54 years in 1902 and 25.17 years in 1918, an approximate increase of 14 years. For females the complete expectation of life at birth was 13.92 years in 1902 and 26.07 years in 1918, the increase being 12.15