

On March 6, at an informal function in Head Office, a presentation of a sum of money was made to Mrs. V. Priest on the eve of her resignation from the Public Service. Many complimentary remarks in relation to Mrs. Priest's 5 years' association with the Department were made by the section heads, all of whom extended the felicitations of the officers in their respective sections.

#### RESEARCH STAFF MOVES

During the month the Entomology Section of the Department of Agriculture moved from 108 Adelaide Terrace to their new laboratories at South Perth. The Section's roomy laboratory which was then vacated has now been made available to Mr. Bowen and the Department's research personnel, who have now moved in. The new setup will greatly facilitate the Department's research activities.

#### PERTH DISTRICT OFFICE

The new district office at Ellam Street, Victoria Park, has now been connected by telephone. The number is 6 - 3996.

#### KANGAROO INVESTIGATIONS

Mr. E.H.M. Ealey, of the Wildlife Survey Section, C.S.I.R.O., Nedlands, has furnished the following report in relation to his Section's kangaroo research during 1957/58, and agreed to its reproduction -

Observations of marked euros, Macropus robustus, during the summer of 1956/57 indicated that euros could exist for long periods without water. This was confirmed by placing six animals in a 6-acre paddock without water. Three survived the three months, September, October and November.

Tame animals deprived of water lost 25 per cent body weight, without distress, most of which was immediately replaced when water was again provided. Evidence from feeding trials suggests that euros normally exist on a low protein diet and as they become dehydrated they eat less, so less water is required to remove nitrogenous wastes. The urine is highly concentrated when produced.

A seasonal series of blood and urine values has been obtained in co-operation with the University of Western Australia in an endeavour to understand how this animal can exist where sheep cannot, and for long periods without water. In conjunction with these tests an extensive series of food plant samples, stomach contents, and faecal pellets has been collected and will be analysed for seasonal changes in water and protein content.

During the summer until it rains euros spend the hot part of the day in granite caves where hygrothermograph records show that temperatures seldom exceed 90° despite outside air temperatures exceeding 110°F.

The results show that the euro is highly adapted in physiology and behaviour to exist for long periods without water. However, an extensive trial in the summer of 1957 showed that in a dry season water poisoning with arsenic can be effective. Night observations of marked animals have shown that a large proportion are sedentary. Poison trials have confirmed this, as a useful area can be cleaned by the efficient poisoning of a single watering point. How fast it would be re-invaded has not yet been determined.

A method of aging euros by the teeth is being worked out. At present they can be accurately aged to 7 years and roughly to 20 years. Some 3,000 skulls have been collected from poisoned and shot samples and taken to Perth where the various populations they represent will be analysed for age distribution and mortality patterns.

Large samples of female euros have been shot to check on birth rates and mortality rates of the young. There appear to be three main peaks in births, only one of which can be correlated with rainfall.

The Woodstock team has now moved to Perth where feeding trials will be carried out on 20 animals that have been flown down, and the result of four years' work will be assessed and written up.