

Letters to the Editor.

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The Disposal of Scientific Journals.

THE "Universities' Library for Central Europe" was established towards the end of 1920 in order to co-ordinate and consolidate the securing by gifts, exchange and purchase, British books, journals, etc., for students, teachers and libraries in the universities of Central Europe. The last year or two has seen a change in the character of our work owing to the fact that the urgency for the distinctly charitable aspect of it has somewhat relaxed, and our task, while less serious from this point of view, in other directions has been considerably extended.

We have administered the book-funds of various universities and institutions in Austria, Czechoslovakia, Finland, Germany, Hungary, Poland and Rumania, established small select libraries in six different places abroad, on the subject of international problems, for the use of discussion groups of university students, and at the request of the Under-Secretary of State at the Foreign Office, have assisted the Parish Public Library at Malines, Belgium, with works of English literature. We have also arranged for regular and direct exchange of publications between Russian scientific institutions on one hand and similar institutions in Great Britain, India and Egypt on the other. Acting in conjunction with the League of Nations Committee on Intellectual Co-operation, we have undertaken to accept literature from other European countries for distribution anywhere in the United Kingdom, and similarly, the Universities' Library distributes all over Central Europe books and periodicals received from universities and learned societies in Great Britain.

In response to a suggestion made by the Editor of NATURE arising out of recent correspondence in the columns of this journal, the Committee has agreed to provide within the Society, a clearing-house for the reception and distribution of scientific books and periodicals from and between individuals and institutions in Great Britain. It is apparent that there are many persons and libraries which at times have to dispose of files of periodicals and other surplus works owing to the exigencies of space. This material often has no great market value, and yet no lover of his subject cares to destroy or sell it as waste paper. Even the indiscriminate giving of this literature does not always result in its most advantageous placing, and undoubtedly the systematic collection and distribution of such books and periodicals is a matter of national importance.

The organisation for such a work already exists, as will be seen, in the above Society, but such an addition to its activities will naturally entail some increase of expenditure; this may not be much more than the cost of packing and transport, but even so, the existing very limited funds of the Society are earmarked for its Continental work, and it will be readily appreciated that this Society must depend upon donations in order to enable it to carry out this further extension of its activities. It is therefore with confidence that we appeal to all readers of NATURE to contribute a small sum to enable this work to be fully developed. Any gift, however small, will be gratefully acknowledged. Any person or

institution having surplus scientific literature which it is desired to place in a suitable library or other institution in the United Kingdom, is invited to communicate with me at this address.

B. M. HEADICAR,
Hon. Secretary.

Universities' Library for Central Europe,
London School of Economics,
Houghton Street, London, W.C.2, June 18.

New Facts regarding the Phases of Migratory Locusts.

THE work on *Locusta migratoria* L., which was published in Russia 1912-14, has been regarded by most entomologists as throwing an important new light on the origin of locust swarms. According to the Russian entomologists, two species, *Locusta migratoria* L. and *Locusta danica* L., are to be regarded as forms of the same species, differing in habits, yet intimately related, in that the two forms may emerge from the same egg-mass, occur in the same hopper swarms, and, as was demonstrated by laboratory experiments, can, by suitably altering the conditions, be changed from one form to the other.

Generalising from the observations of these workers and from the examination of a wide range of examples of migratory locusts from various countries, Uvarov (*Bull. Ent. Res.*, vol. 12, pp. 135-163, 1921) formulated the Phase Theory of the Periodicity and Migration of locusts, according to which periodical swarms are dependent for their inception upon the accelerated breeding of other non-migratory and closely related forms, which persist over a wide range in those countries subject to invasion by swarms. These two forms were named by Uvarov 'phases,' in the case of the South Russian species, the solitary locust being the *danica* phase, and the swarming the *migratoria* phase.

Working about the same time in South Africa on *Locustana paradalina* (Walk.), Faure (*Jour. Dept. Agric.*, Union S. Africa, Sept. 1923) has shown that this locust possesses these two phases, and that the solitary phase, which mingles with the swarms of migratory locusts, is also the locust which occurs on the veldt singly and in small loose swarms during the off-season of the migratory phase.

Another important locust of the Old World is *Schistocerca gregaria* Forsk. (= *S. peregrina* Oliv.), which ranges from India to N. Africa, and occurs as a major pest in some years in the Sudan.

As the result of certain recent observations made by the writer, it is claimed that this locust also comes within the terms of the Phase Theory, in that another species of the same genus (*S. flaviventris* Burm.) has now been ascertained to be the solitary phase of *S. gregaria*.

The opportunity for proving the existence of this relationship, which had already been suspected, was met with when, following the abnormally heavy rains in December 1925, *S. flaviventris* gave evidence of great breeding activity on the Red Sea coast north of Port Sudan early in the present year.

During the previous summer, *flaviventris* locusts could be found singly in this district. After the rains these were attracted to the beds of the watercourses which flow intermittently from the hills on the west towards the Red Sea. Here breeding went on undisturbed for some three months, probably three broods at least being produced, until by March adult locusts very strongly approaching the migratory locust in structure and external appearance were found in large numbers.