the R_F values of these extracts and pure gliotoxin were very similar, it was assumed that the activity was due to production of gliotoxin by the fungus. It was estimated, very approximately, that 0·6 μgm. of gliotoxin/gm. of soil was produced when 5 per cent dried clover was added. Activity was produced in soil to which only 1 per cent dried clover had been added.

A neutral garden loam was treated in the same way and inoculated with *T. viride*; but activity could only be demonstrated in soil which had been acidified. It has been shown by Jefferys[5] that inactivation of gliotoxin is more rapid in garden soil than in Wareham soil, and he related this to difference in *p*H, as gliotoxin is more stable at lower *p*H values.

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Relationship of the Blood Sub-Groups A_1, A_2 and A_1B, A_2B to Hæmagglutinins Present in the Seeds of *Dolichos biflorus*

To identify the blood sub-groups of A and AB, an anti-A_1 serum is used. This is prepared by completely absorbing a human anti-A serum with A_2 cells[1]. The absorbed serum agglutinates A_1 and A_1B cells, but not A_2 or A_2B cells. A-specific hæmagglutinins have been demonstrated in saline extracts of the seeds of *Dolichos biflorus* by Bird[2], and it has been suggested[3] that because extracts of *Dolichos biflorus* seemed predominantly A_1-specific, they may be used to differentiate the sub-groups A_1 and A_2, A_1B and A_2B. The seed extracts have the advantage of being cheaper and more easy to prepare than human sera.

Two hundred samples of A and seventy-five of AB cells were therefore tested both with a human anti-A_1 serum and a saline extract of *Dolichos biflorus* seeds. All the samples were of Indians of no definite ethnological status and were obtained from the local blood-donor centre; 2 per cent suspensions of washed cells in isotonic saline were used. All the samples were less than 24 hr. old. The seeds used were those of *Dolichos biflorus*—Belgaum 1–1–8. They were extracted with isotonic saline by the simple method used by Boyd and Reguera[4] for small quantities of seeds. To differentiate A_1 from A_2 the seed extract was titrated against all the A samples. There was a clear-cut differentiation of the sub-groups of A, A_1 cells being agglutinated in titres ranging from 8,192 to 32,768; and A_2 cells in titres ranging from 4 to 16. In the case of AB cells, no titration was required as the undiluted extract agglutinates A_1B cells strongly and almost immediately, while it agglutinates A_2B cells weakly after about 15 min.

There was complete correspondence between the results obtained with the seed extract and those obtained with the absorbed human serum. There was no sample of A or AB which could not definitely be assigned to its proper sub-group; that is, there was no evidence of the occurrence of any 'A intermediates'. For routine work, a 1 in 64 dilution of the fresh extract in isotonic saline could be conveniently used to differentiate A_1 from A_2. This dilution can also be used to distinguish A_1B from A_2B, because A_1B cells are acted upon[3] up to a titre of 512.

Of the A samples, 177 (88·5 per cent) belonged to the sub-group A_1 and 23 (11·5 per cent) to A_2; while of the AB's, 60 (80 per cent) were A_1B and 15 (20 per cent) A_2B. As the numbers tested are small, and as the group examined was ethnologically indefinite, the anthropological aspect of these figures is not discussed.

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Copepods New to British Waters

During a recent investigation on ascidicolous copepods, at least five species hitherto unrecorded from British waters have been found in Strangford Lough, Co. Down. All are members of the sub-order Notodelphyoida, and are listed below, together with their host ascidians.

Doroixys uncinata Kerschner: in *Polyclinum aurantium* Milne Edwards and *Sidnyum turbinatum* (Savigny).
Enterocola pterophora Chatton and Brément: in an unidentified didemnid.
Haplostomides scotti Chatton and Harant: in *Polyclinum aurantium*.
Haplostoma brevicauda (Canu): in *Polyclinum aurantium*, *Sidnyum turbinatum* and *S. elegans* (Giard).
Haplostoma banyulensis (Brément): in *Trididemnum tenerum* (Verrill).

Five other notodelphyoids so far known only from isolated localities around the British Isles and recorded, for the most part, many years ago, have also been discovered in Strangford Lough, and are given in the subjoined list.

Gunentophorus globularis Costa: in *Pyura squamulosa* (Alder) and *Polycarpa* sp.
Botryllophilus ruber Hesse: in *Botryllus schlosseri* (Pallas) and *Botrylloides leachi* (Savigny).
Enterocola fulgens P. J. van Beneden: in *Polyclinum aurantium*.
Haplostomides hibernicus (T. and A. Scott): in *Polyclinum aurantium*.
Mycophilus roseus Hesse: in *Botryllus schlosseri* and *Botrylloides leachi*.

I have hesitated for some time to assign specific identity to the *Mycophilus* collected, due to the presence of two forms in the lough. One of these is undoubtedly similar to that described by Chatton and Brément[1] as *Mycophilus curvatus*, while the other is apparently identical with *M. vararensis*, originally described by T. Scott[2] as *Enteropsis vararensis* but later annexed to the genus *Mycophilus* by Chatton and Brément. There seems to be little doubt that a third form described by Gray[3] as *M. rosovula* is synonymous with Scott's species. Lang[4], however, regards all members of this genus as referable to the single species *M. roseus*. My own work supports Lang's conclusion; it is hoped to discuss this question more fully in a separate paper.

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