refers to Layman, who obtained specimens from the Pacific Coast of the U.S.S.R. Brinkmann[4] recorded the species from Byfjord (Bergen) in Norway, where he found two infected fish out of six examined. Until recently, it has not been found in British waters, although its occurrence at Roscoff and in Norwegian waters suggests that it may not be uncommon around our shores.

In June 1953, three specimens of *E. abbreviata* were obtained from the gills of a male spur dog which was trawled from the Irish Sea in a depth of 30–35 fathoms on muddy sand about five miles north-west of Bradda Head, Isle of Man. More recently, in September 1956, ten large (77–98 cm.) female spur dogs caught by herring ring-net boats off the Isle of Man (precise locality unknown) were examined, and four of them found to harbour *E. abbreviata*.

Some of the trematodes were attached to the gill filaments, and others to the wall of the gill chamber; but as the fish were not examined for some time (24–36 hr.) after they were caught, it is possible that the parasites may have moved from their original positions.

The lengths of six of the specimens obtained in September 1956 varied between 4·5 and 6 mm., measured when they were fully relaxed in chloretone. This is rather smaller than Cerfontaine's specimens (7–8 mm.), but about the same size as those described by Olsson (4–6 mm.) and Brinkmann (3·9–6·7 mm.).

A full description will be published later.

I wish to thank Dr. B. Dawes, of King's College, London, who examined two of the specimens found in 1953 and agreed with my identification.

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[1] Dawes, B., "The Trematoda" (Cambridge, 1946).
[2] Dawes, B., "The Trematoda of the British Fishes" (Ray Soc., 1947).
[3] Sproston, N. G., *Trans. Zool. Soc. Lond.*, 25, 185 (1946).
[4] Brinkmann, A., Naturvitensk. Rekke, Univ. Bergen, No. 1, 1 (1952).

Tricotyly in the Tomato

Haskell[1] found that the proportion of tomato seedlings with divided or extra cotyledons varied from truss to truss on the variety Clucas-99. Seeds from the first and fourth trusses included a higher proportion than the second and third.

This variation between trusses could have been caused by the position of the truss on the plant, as Haskell suggested, or by temporal variations in the causal factor which might be associated with the stage of growth of the plant, or with variations in the environment. Successive trusses on tomatoes normally have a few fruits developing together. By sowing seeds from individual fruits, it should be possible to distinguish true truss- or position-effects from time-effects with which they may be confounded.

Some plants of the variety Harbinger were grown for this purpose. All were from one selfed fruit, and of the 175 seedlings grown, five had divided cotyledons. In 1955 fruits were harvested from four plants, of which two were dicotyledons, whereas two had divided cotyledons. From the fruits of the first five trusses on the main stem of these plants 4,223 seedlings were grown, of which 4,204 were dicotyledons. There were no significant differences in the frequency of tricotyledons from different plants, trusses or fruits.

In 1956 six plants were grown. Two were grown from cuttings of one of the plants used in 1955, and the others were from the original batch of seed. From three of these plants laterals were removed as they appeared; the others were not pruned. A much higher yield of viable seed was obtained this year, and of the 24,437 seeds germinated, 115 were tricotyledons. Their distribution is given in Table 1.

As can be seen, different plants had different frequencies of tricotyledons. This difference remains unexplained. Pruning apparently had no effect on their frequency. Tricotyledons were rare on plants *H*9/1, *H*9/2, *H*13 and *H*14. So far as could be detected, tricotyledons occurred at random in seeds from different fruits or trusses of each of these plants.

Among fifty-five fruits of *H*11, four had more than two tricotyledons, *H*12 had 92 fruits, and six contained more than two tricotyledons. The numbers of tricotyledons and dicotyledons grown from these fruits, and the probabilities that these numbers of tricotyledons would occur in these fruits if they were distributed at random within each plant, are given in Table 2.

Some fruits contained a significantly higher proportion of tricotyledons than others. The proportion of fruits bearing tricotyledons did not vary significantly from truss to truss on these plants. Tricotyledons are apparently not always distributed on tomatoes as they were on the plants of Clucan-99 which Haskell observed.

It would seem from these results that some factor, which varied from time to time and from plant to plant, caused the production of the tricotyledons.

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[1] Haskell, G., *Nature*, 173, 311 (1954).

Table 1. Distribution of Tricotyledons between Plants

Plant No.	Origin	Description	Treatment	No. of fruits	Dicotyledons	Tricotyledons
*H*9/1	Cutting from *H*9	Dicot.	Pruned	55	3,469	17
*H*9/2	Cutting from *H*9	Dicot.	Not pruned	34	2,555	6
*H*11	Seedling	Tricot.	Not pruned	55	3,937	30
*H*12	Seedling	Dicot.	Pruned	92	6,783	53
*H*13	Seedling	Dicot.	Pruned	72	4,511	2
*H*14	Seedling	Dicot.	Not pruned	62	3,067	7

Table 2. Fruits with a High Proportion of Tricotyledons

	Dicotyledons	Tricotyledons	p*		Dicotyledons	Tricotyledons	p*
Plant *H*11	56	3	0·0094	Plant *H*12	81	5	0·0005
	129	3	0·0774		39	5	<0·0001
	102	3	0·0443		29	3	0·0019
	38	6	<0·0001		54	4	0·0011
					63	3	0·0148
					103	3	0·0499

*p was calculated from the totals for each plant separately.