

Table 1. DATA RELATING TO THE OCCURRENCE OF TOXÆMIA OF LATE PREGNANCY IN CERTAIN BRITISH LOWLAND SHEEP FLOCKS, 1953-55

Group	Year of supervision		No. of flocks	No. of ewes at risk*	Average litter size†	Pregnancy toxæmia			Attack-rate per 1,000 ewes at risk*	
						Total cases	Died	No. of flocks affected	Morbidity	Mortality
1 (Pedigree Suffolk folded flocks in England and Scotland)	1st	1953	28	4,138	1.39	66	62	7	16.0	15.0
	2nd	1954	27	4,955	1.29	31	13	8	7.6	3.2
	3rd	1955	31	4,463	1.54	13	11	9	3.0	2.5
2 (Commercial flocks on grass in North-West England)	1st	1953	21	1,909	1.60	41	27	9	21.5	14.3
	2nd	1954	24	2,171	1.48	8	6	4	3.7	2.8
	3rd	1955	20	2,023	1.36	3	3	1	1.7	1.7
3 (Commercial flocks folded and on grass in Southern England)	1st	1954	5	1,987	1.45	46	42	4	32.5	30.0
	2nd	1955	5	2,211	1.63	61	54	5	27.6	24.4
			4‡	1,781	1.62	7	3	4	3.9	1.7

* Ewes at risk is the number of ewes put to ram less those barren, those aborting (before 135 days of gestation) and those lost by accident and death, excepting those dying of pregnancy toxæmia.

† Average litter size is the ratio of the total number of lambs carried by the ewes at risk, that is, the total number of live and dead born lambs plus the lambs carried by ewes dying of pregnancy toxæmia, divided by the number of ewes at risk.

‡ Excluding one flock (see text).

The system of ante-natal care, which has been used with individual modifications in all the flocks, has aimed at restricting the gain of weight of the ewes during early pregnancy, while ensuring good gains during late pregnancy. As soon as the ewes are known to be pregnant, their nutriture has been maintained unchanged as far as possible by control of the food intake, either by varying the size of the fold or the amount of grazing allowed. About six to eight weeks before lambing is due (depending on the weather), the food intake has been increased, either by allowing access to improved grazing or more usually by feeding supplements of corn, hay, etc. A common method has been to give a concentrate feed containing about 10 per cent of good-quality protein, commencing with $\frac{1}{4}$ lb. a head a day and increasing to 2 lb. a day for the last fortnight before parturition; during periods of severe weather, these amounts may be increased. At the same time, provision has been made for plenty of exercise, and any cases of the common ailments such as contagious foot-rot treated at once. Further details of these measures have been given elsewhere⁵.

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A Bathynellid from the New World

THE species of the syncarid family Bathynellidae are typical representatives of the subterranean freshwater fauna. There are three known genera, *Bathynella* from Europe, *Parabathynella* from Europe, Madagascar, Malaya and Japan, and *Thermobathynella* with the species *adamii* Capart from the Belgian Congo and *leleupi* Deboutteville and Chappuis from Lake Tanganyika^{1,2}.

A locality on the American continent can now be added. In 1954 S. Gerlach undertook a voyage to

Brazil, assisted by a fellowship of São Paulo University and the Deutsche Forschungsgemeinschaft. On January 13, 1955, he discovered a bathynellid species at Icoaraci, about 17 km. north of Belém (Pará), by the bank of the River Pará about 80 km. upstream from the ocean. The beach of Icoaraci consists of pebbles, gravel and clay. A little pit had been dug at a distance of about 1 m. from the shore. The subsoil water appeared 10-15 cm. below the beach surface. The water did not smell brackish, but Dr. H. Sioli states that at least in the dry season of the year the water at Icoaraci and up to Belém used to be brackish.

The sample contained three specimens of Bathynellids, some oligochaetes, polychaetes and acari, one harpacticoid copepod and numerous nematodes. Most of the nematodes belong to the species *Onchulus longicaudatus* Cobb. This species has been described "from soil about the roots of living plants imported from Brazil into the United States"³, so the actual habitat of the type specimen is unknown. But it is an interesting fact that *Onchulus nollii* Goffart, the only other representative of the genus, may be considered a truly stygobiont European species, found exclusively in subsoil freshwater biotops and sometimes even together with *Bathynella natans* Vejdovsky⁴.

The new bathynellid species from Brazil is a representative of the genus *Thermobathynella* Capart, the second antenna consisting of five joints and extremities lacking on the eighth thoracic segment. It can be distinguished from *Th. adamii*⁴ and from *Th. leleupi*² by the first antenna, which consists of five joints instead of six, and by the fact that epipodites are lacking on the first two pairs of thoracopods. In the arrangement of the setae on uropods and furca the new species is similar to *Th. leleupi*.

A comprehensive description will be published in *Kieler Meeresforschungen*.

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⁵ Capart, A., *Bull. Inst. Roy. Sci. Nat. Belgique*, 27 (1951).