# SURVIVAL OF OVIPOSITING IXODES RICINUS FEMALES

Information about the duration of survival of ovipositing tick females is very scarce. We therefore paid attention to this problem during our long-term studies on the life cycle of the common tick in south Moravia. As live specimens were classified those females in which movement of extremities was marked during visual control.

In the first group of females which had engorged in May the breeding cages were checked daily (cf. Daniel M. et al., Folia parasit. (Praha) 19: 305—314, 1972). The onset of oviposition in females planted in the forest biotope on 15 May 1969 was observed between 30 May and 3 June 1969. The survival of females (25 specimens) since the onset of oviposition varied between days 17 and 73 (57.2 days on the average). The onset of oviposition in females planted in the open meadow biotope on 16 May 1969 was ascertained between 27 May and 1 June 1969. The survival of females (28 specimens) since the onset of oviposition varied between days 17 and 72 (49.6 on the average). While comparing both biotopes the picture proved similar to that observed while investigating the survival of unfed tick stages which died sooner in the open terrain than in the forest (Daniel M. et al., Folia parasit. (Praha) 24: 149—160, 1977).

In the second group of females which had engorged in late summer and in autumn the checking could be done only once a month. In the forest 15 females were traced which had been planted there on 28 September 1970; when checked on 5 November 1970 eggs were found. Oviposition continued after hibernation the following spring. These females were found to be living on 7 April 1971 (after 153 days since the onset of oviposition) three times, on 6 May 1971 (after 182 days) ten times and on 8 June 1971 (after 215 days) twice. In the open terrain 19 females which had been planted on 27August 1971, were observed and when checked on 16 September 1971 eggs were found with them. The oviposition of these specimens was completed the following spring. During checking live females were observed on 3 May 1972 (after 229 days since the onset of oviposition) six times and on 7 June 1972 (after 264 days) 13 times. Consequently it may be seen that particularly those females which start ovipositing in September with winter interruption, can survive for a considerably long period, in our experiments as long as over 37 weeks. This value may be somewhat higher because some engorged females already oviposited a few days prior to 16 September 1971 and survived even after 7 June 1972.

It should be emphasized that the absolute majority of females which dropped off in August and later, do not survive longer than by June, irrespective of the fact whether they start ovipositing in the current or next year. Out of 362 females which had engorged between August and October we observed the survival of ovipositing specimens by July only twice — (0.55 %). An extraordinary case was a female which had engorged on 3 October, laid eggs (found during checking on 6 April) and was still living on 13 July, i.e. 283 days after dropping off and at least 98 days since the onset of oviposition.

All these findings indicate that *Ixodes ricinus* females survive a considerable time after the onset of oviposition, especially when they feed in the second half of the year.

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