



P 60 The seasonal activity of questing *Ixodes ricinus* in two regions of Bavaria (southern Germany), Oberpfalz and Niederbayern

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The seasonal activity of questing *Ixodes ricinus* ticks was estimated in 20 localities in 2 regions of Bavaria (Germany), Oberpfalz and Niederbayern. The collection sites were chosen using GIS analysis (ArcGIS 9.2 software under ARCFINFO licence). The criteria for selection of collection localities were: high/low occurrence of tick-borne encephalitis cases in Oberpfalz and Niederbayern in the past 9 years (from 2001 to 2009), altitude up to 750 m above sea level, tourism attraction, and appropriate vegetation cover for ticks (CORINE Landcover 2006). Fifteen and 5 collection localities were located in areas with high and low occurrence of tick-borne encephalitis, respectively. The host-seeking activity of *I. ricinus* was estimated by flagging 600 m² at each collection site. Ticks were collected 3 times in 2010, in May, June, and September. Each locality was characterized by vegetation cover, altitude, and during each collection time, temperature and humidity were recorded. Nymphs, females, and males were stored separately. A total of 8800 host-seeking *I. ricinus* ticks were collected (8200 nymphs, 301 females, and 299 males). In Oberpfalz and Niederbayern, we flagged 5191 ticks (4805 nymphs, 197 females, and 189 males) and 3609 ticks (3395 nymphs, 104 females, and 110 males), respectively. We recorded the maximum host-seeking activities in the summer collections in Oberpfalz (on average 229.7 ticks per locality) and in Niederbayern (on average 138.2 ticks per locality). Tick host-seeking activity was recalculated for density (number of all tick stages per 100 m²). The highest mean density of host-seeking *I. ricinus* was recorded in summer (29.9 ticks per 100 m² per locality), in comparison to spring (23.9 ticks per 100 m² per locality) and autumn (19.6 ticks per 100 m² per locality). We evaluate the used GIS method as a very appropriate tool for selection of tick sampling sites.