

Abstract

Current knowledge of the spinning apparatus comes namely from studies on orb web spiders and their relatives, whereas that of wolf spiders were more or less neglected. Therefore, developmental changes of the spinning apparatus of four wolf spiders were studied throughout their life cycles. Each of these lycosids possesses stenochronous life cycle with similar number of instars (7–10) but of different length (1–3 years). There is only one period of reproduction in spring/summer in all four species. Sperms are being formed just after the final moult; diplotene in some species is peculiar. The courtship behaviour reflects the microhabitat occupied by the concrete spider species; the copulations are species specific. Ontogeny of the spinning apparatus of developing spiderlings was observed: The spinning apparatus initiate its function in the first instar. Secondary ampullate, all piriform and all but four aciniform glands are tartipore-accommodated; they do not moult *in situ*. The tartipores, vestigial structures corresponding to spigots of the previous instar, appear on the spinning field starting with the second instar. Tartipore-accommodated glands play roles also during proecdysis and their evolution corresponds with the way how do the spiders secure themselves when moulting. Hence, the not yet known function of aciniform silk in juvenile wolf spiders was clarified and described as an ancillary “scaffold” anchoring the spider’s body during ecdysis.