

*affinis*, allegedly by Schenck himself. The queen is clearly *L. affinis* according to the original careful description given by Schenck; three males are probably so, but this caste is harder to differentiate in this species group; the one worker labelled *L. affinis* however is a typical *L. umbratus*. Two other workers are labelled *L. incisus* zu *affinis* (*incisus* was Schenck's name for *L. bicornis* Foerst.), but appear to be definitely *L. affinis* and not *L. bicornis*.

The principal diagnostic features of the female castes include absence of standing hairs on scapes and tibiae, near absence of genal hairs, high, indented petiole scale, flattened antennal scape and long profuse body hairs. The flattened scape and absence of tibial hairs distinguish the species from *L. umbratus* in Nylander's restricted sense; the flattened scape and long body hairs equally distinguish it from *L. mixtus* Nylander and the combination of characters distinguish it from *L. umbratus* sensu Wilson. The species is clearly similar to *L. bicornis*, but the queen is easily distinguished by its greater size (length 7-8 mm. instead of 5-6 mm.) and less deeply indented scale. The worker is distinguished by more profuse body hairs; those on the first gaster segment are numerous and well distributed over the dorsal and basal surfaces whereas in *L. bicornis* they are more restricted to the basal face and the posterior borders of the gastric tergites. The different gaster pilosity and scale shape were clearly pointed out in Schenck's original description as also in those of subsequent authors including Mayr (1861), André (1881), Stitz (1939). More recently Boven (1955) has given a full account of *L. affinis* in Belgium, distinguishing it in a similar way both from *L. bicornis* and from Nylander's species.

Together with Schenck's material, I have now had the opportunity of examining 5 queens, 8 males and 21 workers from 9 European localities. These include examples of the three castes kindly sent by Dr. J. K. A. van Boven from Belgium, a male, queen and worker from Switzerland in the Oxford University Museum, examples of the three castes and another series of workers taken by Dr. I. H. H. Yarrow in the Huesca province of Spain, two workers taken by Professor H. Franz in Pontevedra province, also in Spain, and a series of workers taken by myself in Fontainebleau Forest, France, in 1955. All examples of the female castes consistently show the diagnostic features enumerated above. The Belgian material, that of Dr. Yarrow and mine was all collected from nests in rotten stumps which conforms with recorded captures given by other authors, e.g. Stitz (1939). The nest situation of the other series is not known but it is fair to add that the species has occurred in other kinds of habitat, in particular, ground nests in grass and heather (Schenck, 1852; Kuznetsov, 1929; Sadil, 1939). The known range of *L. affinis* includes Germany, Switzerland, Belgium, France and Spain; Stitz (1939) also gives North Italy, Hungary and the Pyrenees, and there are records from Czechoslovakia (Sadil, 1939), Siberia and South