

# SYNANTHROPISATION AND SPREADING OF DERMESTIDAE (INSECTA: COLEOPTERA)

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The phylogenetically ancient family Dermestidae is specialised to the developing in dry substances of animal origin. Therefore most species of Dermestidae occur in areas with dry climate. Transition to a synanthropic state of life proceeds in two steps. At first it proceeds from the natural environment (drying carcasses, dry organic rests in the nests of birds and of social insects, etc.) to similar substrates found in human dwellings in the home area of certain species. This synanthropisation took place either in ancient human dwellings (paleosynanthropisation) or in recent times (neosynanthropisation). The second step of synanthropisation is the colonisation of other areas, often with inconvenient natural conditions, through unintentional introduction by man. In such new areas these species survive only under synanthropic conditions of artificial higher temperature and secondary sources of food.

An example of primary transition is the synanthropisation of a little-mobile species *Thyodrias contractus* with wingless females, living in original biotopes of holes bored by carnivorous mammals in Central Asia to home dwelling in that area, the secondary step of synanthropisation is the spread of this species to the temperate and subarctic zones of Europe and North America through introduction by man. An example of neosynanthropisation are originally African species *Attagenus smirnovi* and *Attagenus woodruffei*, having spread in the course of the past 20 years to some countries of northern and central Europe. The species *Att. smirnovi* was found in Bohemia five years ago, now being a common synanthrope in towns. The tropical American species *Dermestes haemorrhoidalis* occurring in our country only after the Second World War, is currently more common than the common autochthonous species *D. lardarius* in buildings with long-distance heating. An even explosive spreading of some synanthropic species has been also observed in other families, for example in the species *Tribolium destructor* (Tenebrionidae). In the northern parts of the temperate zone one-half of the fauna of Dermestidae consists of synanthropic species introduced from the tropics and subtropics by human activities.

Some species of the southern origin, for example the originally African, now cosmopolitan species *D. maculatus*, may survive in the temperate zone in nature only in the summer season, however, they can survive the winter only in human dwellings. Further, there are presented examples of the exchange of synanthropic species of Dermestidae between zoogeographical areas.