

This flea (*Sarcopsylla penetrans*) and its habits have been known for centuries (1551). It was first discovered and named by Linnaeus in the middle of the Eighteenth Century. It originated in Tropical America, between 30° North and 30° South. At about 1872 it was imported by a Portuguese vessel to the West Coast of Africa; from there it spread rapidly over the whole of the African Continent, and from its East Coast, to Madagascar, Persia, India and China. It is found everywhere but is particularly abundant in dry, sandy places.

The males, and the females—until they are impregnated live in the same way as does the common flea. They are only casual parasites of warm-blood animals; but, so soon as the female is impregnated, she attaches herself to the skin of her host and burrows beneath the epidermis until only the terminal segments with the genital orifice and tracheal openings are visible; all that can be seen on a white skinned person when the flea first embeds itself is a small black spot. Since the fleas live upon the ground, naturally those parts coming in contact with the earth are the most frequently infected by the fleas. Thus for example, in men, the soft skin between the toes and around the roots of the nails are the most usual sites.

The free living female is about 1 m/m in length. The male is twice that length. Both have the familiar laterally compressed, ovate brown body of the more common fleas; but are slightly smaller, and their body is somewhat deeper. So soon as the female has become embedded beneath the epidermis of its host, it commences to increase rapidly in size through the enormous development of its reproductive organs, until it reaches the size of a large pea and contains hundreds of eggs; the abdominal segments become so stretched that the originally brown flea becomes quite white. The cephalo-thorax, with the first and the last two segments of the abdomen, does not participate in this enlargement. As the eggs mature, they are laid and expelled through the wound opening into the sand, where they develop after a few days in to a long cylindrical larva. The larva forms a cocoon, from which the perfect insect emerges in 8 or 10 days.

The chief danger of infection by the chigger is the possibility that the little wounds it creates may become infected. It is probable that the life of the embedded flea is only some three weeks; it then dies. Probably the fleas are often killed before this by some slight pressure or violence which ruptures their distended abdomen. In either case infection occurs and the space formerly occupied by the flea becomes a small abscess cavity in which the remains of the chigger are present as a foreign body. In many cases ulceration sets in earlier and by the sloughing of the enclosed skin the living insect is set free. Sometimes the entrance of the flea is accompanied by pain; frequently, however,