

RECOGNISING IMPORTANT FLEAS AROUND THE WORLD



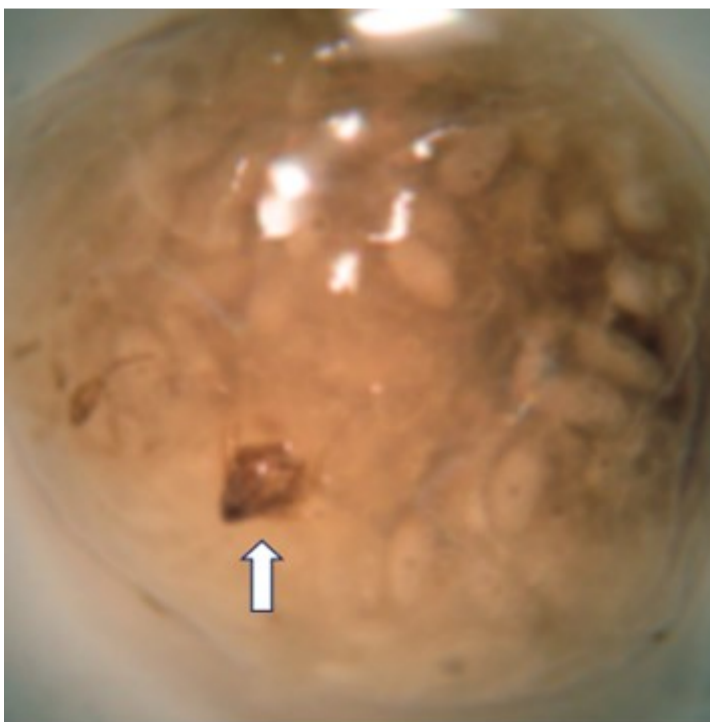
XENOPSYLLA CHEOPIS — TROPICAL RAT FLEA

This species and others in the genus *XENOPSYLLA* are important vectors of human plague and murine typhus in warmer countries of the World. Both pronotal and genal combs are absent.

X.cheopis is distinguished from *Pulex irritans*, another similarly combless rodent flea, by the presence in the former of the pleural rod or meral rod (arrow, right) which is a thickening of the cuticle in the sternite just above the middle pair of legs. Female *X.cheopis* have a dark spermathaeca (arrow, left).

NOSOPSYLLUS FASCIATUS — BROWN RAT FLEA

Common on *Rattus* and other rodents in cool temperate areas throughout the World. This species maintains plague among rodents, but is not thought to be an important vector of human disease. The pronotal comb has 18-22 spines and the genal comb is absent. Three strong bristles are situated below the eye (arrows)



TUNGA PENETRANS — THE SAND FLEA, JIGGER FLEA OR CHIGOE

A subcutaneous parasite of Neotropical regions, and introduced into West Africa. Hosts include humans, pigs, dogs and other animals. A small flea (1mm). The female flea is usually found in the skin where she mates and produces eggs. The arrow shows the head of the flea within the swollen body which can expand to the size of a pea.

ECHIDNOPHAGA GALLINACEA — STICK-TIGHT FLEA

This species occurs in warmer countries and is best known as a parasite of birds especially poultry, but has a wide host range including cats, dogs, rabbits, and humans.

The front head or 'frons' is angulate and the blade like stylets or laciniae are coarsely serrated (arrow). This flea anchors itself into the skin by means of these serrated structures. There are no combs

