RECOGNISING PARASITES ASSOCIATED WITH IMPORTED DOGS (2): TICKS, TICK-BORNE DISEASES AND LEISHMANIA

DERMACENTOR RETICULATUS, The Meadow Tick, is present locally in the UK but is very common and widespread in many parts of Europe. This tick does not infest dog accommodation or houses. Note the silvery enamel scutum (Fig 1, S, arrow) and ornate area of cuticle below the head, *Dermacentor* spp. Adults are further identified by the lateral expansion of the middle palp segment (Fig, 1a, P, arrow).

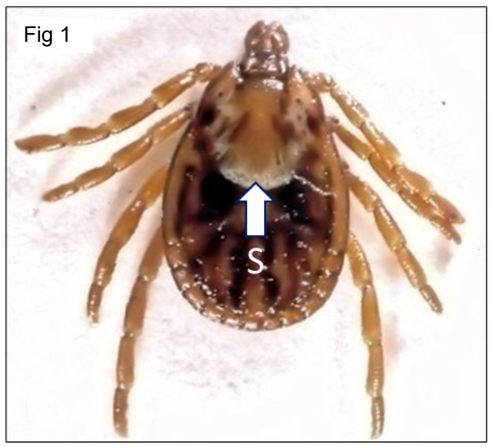

Fig 1

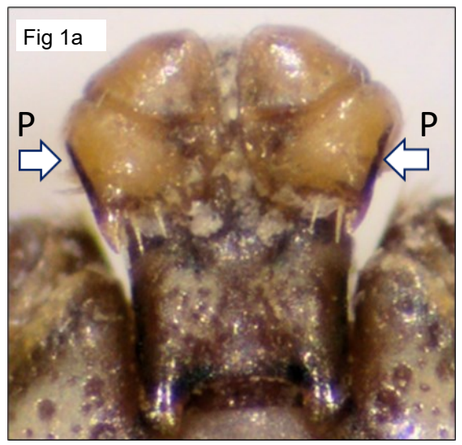

Fig 1a

RHIPICEPHALUS SANGUINEUS, The Brown Dog Tick, is associated with dogs and their accommodation worldwide, and may infest homes. Very heavy infestations can occur, as illustrated in the severe case below, (Fig 2). Adults (Fig 2a) are brown/red in colour and 5-6 mm in size. All stages of this dog tick—larvae, nymph, and adults—can be identified by the appearance of the short palps (Fig 2b, P, arrow) which sit on either side of the 'false head', with prominent lateral angular projections on both sides (T, arrow).


Fig 2


Fig 2a

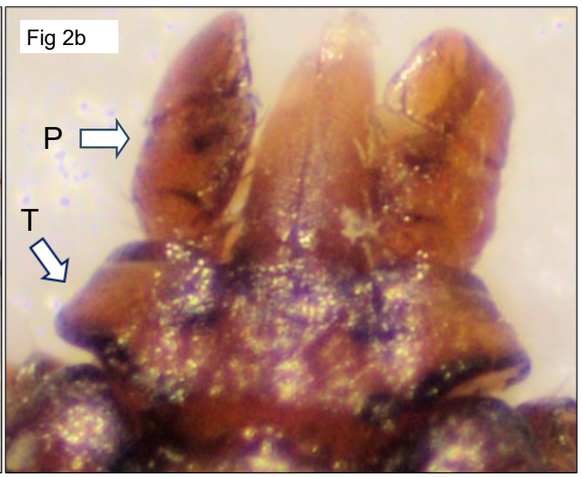

Fig 2b

TICK-BORNE DISEASES: Both *R. sanguineus* and *D. reticulatus* transmit *Babesia canis*, an intraerythrocytic parasite which is highly pathogenic in immunologically-naïve dogs. This protozoa may be seen within red blood cells when stained with Geimsa's stain (Fig 3), *R. sanguineus* also transmits *Ehrilchia canis* and *Rickettsia conorili* the zoonotic agent of Mediterranean Spotted Fever. Inclusion bodies of *E. Canis* may be detected in monocytes in stained smears (Fig 4). Several other species of tick are found on dogs, and are associated with various tick-borne diseases as described on the ESCCAP Website.

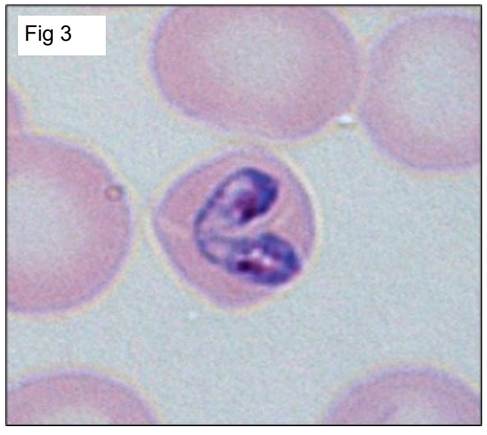
Fig 3

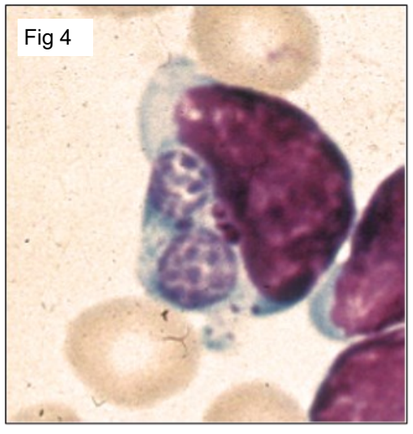
Fig 4

LEISHMANIA (Fig 5) is protozoal parasite transmitted by sand flies. The amastigote stage of the parasite can sometimes be seen in the macrophages from lymph node aspirates of infected dogs, with the characteristic rod-shaped kinetoplast (arrow). Many parasites with rod shaped structures are shown here next to the large macrophage nucleus. A sandfly is shown below.

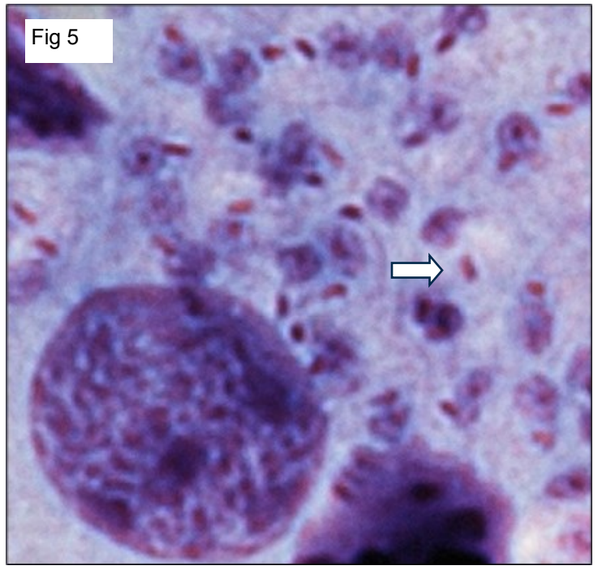
Fig 5