

Correspondence

Scalp infestation by *Liposcelis mendax*

STR. Whilst investigating failures of treatments for head lice we found one case that may help explain some other refractory cases of scalp infestation.

In October 1989 a school meals assistant and child helper in an infant school attended by her daughter were first treated for head lice. This treatment was apparently successful as no lice or new eggs were detected during the next few weeks. However, several months later the mother again reported finding lice on her own scalp and treated herself with an overnight application of carbaryl lotion. As a precaution all her family contacts were treated concurrently. Over the next 10 weeks she experienced three more infestations each of which was treated in the same way. On each occasion no other member of the family was found to be infested.

After the fourth occurrence she sought our advice and specimens were obtained for further investigation. These proved to be not young nymphs of head lice, *Pediculus humanus capitis* (Anoplura) (Fig. 1a), but a species of psocid, *Liposcelis mendax* (Psocoptera) (Fig. 1b) which is commonly found in buildings throughout Europe. Examination of the patient's house showed that the psocids, also known as book lice, were present in greatest numbers in an old bedside cupboard which was subsequently removed. The incidence of infestation then ceased. However, several months later she again suffered an attack after performing some housework during which her head came into contact with the floor and skirting board near the bed where psocids continued to live in the sheltered crevices.

Several species of psocids are found living in the nests of birds

and small mammals and sometimes amongst their fur or feathers.^{1,2} In the domestic environment this type of insect normally lives in kitchens and bathrooms where they feed by scavenging on crumbs of food and microscopic fungi that thrive in humid conditions. In some places they have become a considerable pest of new houses, living on the moulds that grow as the buildings dry out. Similar conditions may be found in some bedrooms where the humidity can rise considerably during the night when the room is occupied. Because most psocids are themselves highly susceptible to dehydration the relatively high humidity in the immediate vicinity of a sleeping person would be attractive to them and, provided the insects have access to a shelter during the day, it is possible that this type of temporary invasion of the scalp is quite common. In the case of our patient the risk was increased because she was in the habit of retiring to bed shortly after washing her hair whilst it was still quite wet.

A similar case, but without details of the species of psocid involved or circumstances of infestation, has recently been reported from Denmark in which the patient had similarly erroneously concluded that the 'head lice' were resistant to treatment.³ Because psocids are superficially similar in size and appearance to head lice nymphs such errors of identification, without the aid of a microscope are all too easy. On magnification the insects can easily be distinguished by the relatively massive size of the claws of head lice and their short stubby antennae (Fig. 1a) compared with the slender legs and long filamentous antennae of psocids (Fig. 1b). Additionally the mandibles of the psocid show that its feeding habit is to chew in contrast to the suckling mouthparts of the head louse.

If psocids are identified as the cause of infestation the most

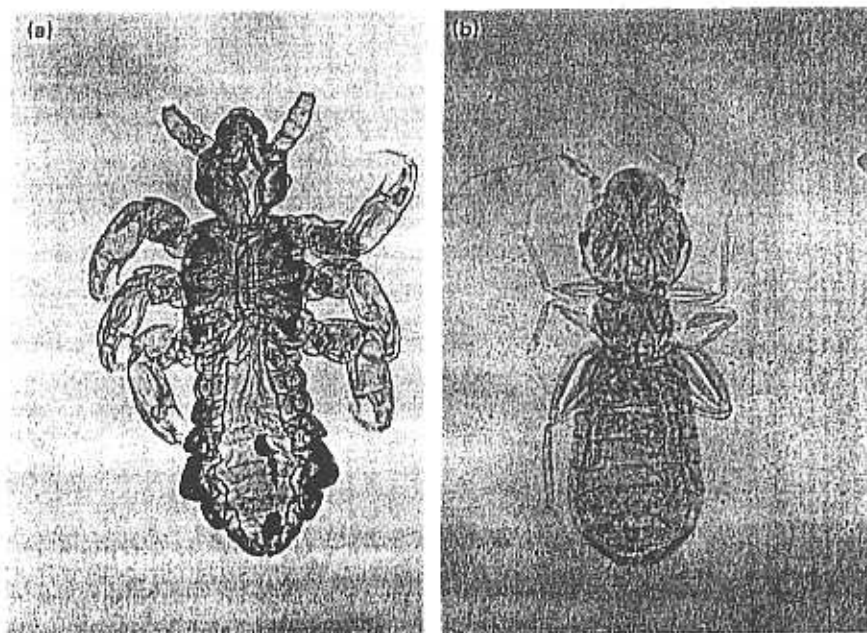


Figure 1. (a) A first instar nymph of the head louse, *Pediculus humanus capitis*, showing short stout antennae and large claws on robust legs ($\times 40$). (b) An adult female psocid, *Liposcelis mendax*, showing long filamentous antennae and slender legs ($\times 40$).

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satisfactory control measure is reduction of humidity and improved ventilation of the affected rooms which dehydrates the insects and eliminates their food sources.

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- 2 Mockford EL. Psocoptera from sleeping nests of the dusky-footed wood rat in southern California (Psocoptera: Atropidae, Psoquillidae, Liposcelidae). *Pan-Pacif Ent* 1971; 47: 127-40.
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