

Summarizing all these lots, we have :

On rats ( <i>Mus norvegicus</i> )—	On humans—
Ceratophyllus fasciatus . . . . . 863	Pulex irritans . . . . . 680
Pulex irritans . . . . . 163	Ceratophyllus fasciatus . . . . . 2
Loemopsylla cheopis . . . . . 139	Ceratophyllus sp . . . . . 2
Ctenopsyllus musculi . . . . . 118	On mice ( <i>Mus musculus</i> )—
Hoplopsyllus anomalus . . . . . 8	Ceratophyllus fasciatus . . . . . 25
Ctenocephalus canis . . . . . 9	Ctenopsyllus musculi . . . . . 14
	Loemopsylla cheopis . . . . . 7
	On mice ( <i>Microtus californicus</i> )
	Ceratophyllus fasciatus . . . . . 1

A study of these records shows that *Loemopsylla cheopis*, which is known as the plague flea in countries where the disease is epidemic, is well established in San Francisco, and is spreading to other near-by cities. Doubtless a search would reveal it in many localities. It is interesting, too, to note that out of the 672 fleas taken from human beings, some of them patients who were sick or had died of the plague, from attendants in the hospitals, and from men engaged in catching the rats, not a single *Loemopsylla cheopis* was found. On the other hand, *Pulex irritans*, which is the most common human flea, has been found quite abundantly on rats. One sending from Dr. Rucker contained 81 specimens of *P. irritans* and no other species. These were collected from 18 rats taken in houses and sewers in one of the infested districts. It will be noted, too, that *C. fasciatus*, the most common rat flea, was in two instances taken from human beings.

The records from Stanford University show that *C. fasciatus* was more common on mice than *Ctenopsyllus musculi*, the latter being quite common on the rats.

The eight specimens which seem to be identical with Baker's *Hoplopsyllus anomalus*, which was originally described from a *Spermophile* in Southern Colorado, are interesting in that they seem to show a possible connection between the rats and the squirrels. Dr. Blue has often stated that should the plague ever become endemic here it would probably spread from the rats to the ground squirrels, thus making it much more difficult to stamp out.

The single specimen of *Ceratophyllus fasciatus* also shows the possibility of the spread of the plague to the native rats and mice.