

XU Rong-man 1997. On the status of plague in mainland China [Sur l'état de la peste en Chine]. *Vector Ecology Newsletter*, 28(1): 4-5.

Through more than forty years of effort, rodent control efforts have succeeded and human plague has decreased; only 13 cases in 1993, zero cases in 1994, 8 cases in 1995, and 21 cases in 1996. But we must be on the alert because there are ten geographical foci of plague in China. The following illustrates the situation ...

1. Plague focus [in] the house rodent, *Rattus flavipectus*. This species is found in southern Yunnan and seaboard of Zenjiang, Fujian, Taiwan, Guangdong and Guangxi in southern China, covering over 20,000 sq. km., including 56 counties. The main vectors are *Xenopsylla cheopis* and *Leptopsylla segnis*. Other infected flea [species] are [*Ceratophyllus*] (*Monopsyllus*) *anisus* and *Nosopsyllus nicanus*. Other infected [hosts] are *Rattus norvegicus*, *Mus musculus* and *Suncus murinus*. Since 1953 no human plague has occurred [in this focus] except in south Yunnan.

2. Plague focus [in] *Eothenomys miletus* in the mountains. Its distribution is in northwestern Yunnan, covering 600 sq. km. The main vectors are *Ctenophthalmus quadratu[s]*, and to a lesser degree, *Neopsylla specialis*. The main reservoir host is *Eothenomys miletus*. Other infected animals are *Apodemus chevrieri*, *Apodemus speciosus* and *Rattus nitidus*. This wild rodent plague focus was identified in 1975. Epizootic plague has been found many times in the past 20 years, but no human plague has been reported.

3. Plague focus [in] *Marmota himalayana*. [This host] is found mainly in Tibet and Qinghai, south to the Himalaya Mountains, north to the Qilian Mountains, west to the Kunlun Mountains in Xinjiang, and east to southern Gansu, covering nearly 1,000,000 sq. km. [and] including 54 counties. The main vectors are *Callopsylla dolobris* and *Oropsylla silantiewi*. Other infected fleas and [hosts] are *Rhadinopsylla li* [and] *Pulex irritans* and *Ochotona daurica annectans*, *Ochotona curzoniae*, *Lepus oiostolus*, *Vulpes ferrilata*, *Procapra picticauda*, *Mus musculus*, *Cricetulus migratoriu[s]*, *Microtus oeconomus* and *Pitymys leucurus*. This is a stable epizootic focus and is active from April to September. {It} is the most important focus in China and produces most of the human cases.

4. Plague focus [in] *Marmota caudata*. Its distribution is in southwestern Xinjiang and is a part of the Pamir Plateau plague focus in Middle Asia, covering 600 sq. km., including two counties. The main vectors are *Oropsylla silanteiwi* and *Rhadinopsylla li*. One other infected flea species and [mammal host] is *Citellophilus lebedewi princeps* and *Pitymys juldaschi*. This focus was identified in 1956 and is active from May to August. There has been no human plague recorded in the epizootic plague focus.

5. Plague focus [in] *Marmota baibacina* and *Spermophilus undulatus*. Its distribution is in the Tianshan Mountains of Xinjiang, encompassing 7,000 sq. km., including 10 counties. This focus extends in[to] Kazakhstan and Kirgizstan. The main vector is *Oropsylla silantewi*. Other infected flea [species and hosts] are *Callopsylla dolabris*, *Citellophilus tesquorum altaicus* and *Clethrionomys glareolus*. Here epizootic plague occurs from May to September. Since 1973 no human plague cases have been recorded.

6. Plague focus [in] *Spermophilus alaschanicus* in Gansu-Ningxia. Its distribution is in eastern Gansu and southern Ningxia, northern China, encompassing 3,000 sq. km., including five counties. The main vector is *Citellophilus tesquorum mongolicus*. Other infected flea [species] are *Neopsylla abagaitui*, *Frontopsylla elat[a]* and *Ophthalmopsylla praefecta*. Other infected host [species] are *Myospalax fontanieri*, *Meriones meridianus*, *Cricetulus triton*, *Al[l]actaga sibirica* and *Ochotona daurica*. Epizootic plague occurs [from] April to October. Since 1978 no human plague cases have been recorded.

7. Plague focus [in] *Meriones unguiculatus* in [the] Inner Mongolian plateau. Its distribution is mainly in Inner Mongolia, and the nearby three counties [=Provinces] of Ningxia, Shaanxi and Hebei, encompassing 100,000 sq. km., including 28 counties. The main vectors are *Nosopsyllus laeviceps* and *Xenopsylla conformis*. Other infected flea [species] and [hosts] are *Neopsylla pleskei*, *Citellophilus tesquorum mongolicus*, *Paradoxopsyllus kalabukovi*, *Rhadinopsylla insolita* [and] *Rhadinopsylla tenella*, and *Spermophilus dauricus*, *Spermophilus erythrogenys*, *Meriones meridianus*, *Dipus sagitta* and *Mus musculus*. Epizootic plague appears [from] April to November. There was a large epidemic in animals in 1970-1971. Since 1973 no cases of human plague have been reported.

8. Plague focus [in] *Spermophilus dauricus* in the plains of [the] Songhuajiang - Liaohe Rivers. Its distribution is in Inner Mongolia,

Liaoning, Jilin and Heilongjiang provinces, covering 120,000 sq. km., including 42 counties. The main vector is *Citellophilus sungaris*. Other flea and host species are *Neopsylla bidentatiformis* and *Xenopsylla cheopis* and *Rattus norvegicus* and *Mus musculus*. There are small epidemics in animals every three to five years and larger epidemics every 10-15 years. There have been no human cases of plague since 1959.

9. Plague focus [in] *Microtus brandti* in [the] Xilin Gol Plateau. Its distribution is in the Xilin Gol Banner [?] of northern Inner Mongolia, with 60,000 sq. km. The main vectors are *Amphipsylla primaris* and *Neopsylla pleskei*. Other infected flea and host species are *Frontopsylla luculenta*, *Neopsylla bidentatiformis*, *Citellophilus tesquorum mongolicus*, *Nosopsyllus laeviceps* and *Meriones unguiculatus*, *Spermophilus dauricus*, *Ochotona daurica*, *Allactga sibirica* and *Mus musculus*. Epizootic plague occurs from April to November. It seems that there is an epidemic every five years. No plague in humans has occurred historically.

10. Plague focus [in] *Marmota bobac sibirica* in [the] Hulum Buir Plateau. Its distribution is in northeastern Inner Mongolia, with 40,000 sq. km. This epizootic focus is part of the *Marmota bobac sibirica* focus in Russia and Mongolia. The main vector is *Oropsylla silantiewi*. Since 1926 the plague bacillus has not been isolated from marmots [or their] fleas, therefore this plague focus has been eradicated. It may be due to hunting marmots for a long period of time.