

SFROLOGIC SURVEY OF WILD RODENTS IN GEORGIA
FOR ANTIBODIES TO ORTHOPOXVIRUSES

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Epizootic outbreaks of cowpox occurred in 1973 and 1974 among predatory and edentate animals in the Moscow Zoo. Infected albino rats used for feeding of these animals (1-3) were found to be the source of infection. Similar outbreaks caused by cowpox virus occurred in Great Britain among cheetahs in two Zoos (4). In 1978 cowpox virus was isolated from eye discharge of a Polish peasant woman who suffered from seropurulent conjunctivitis (5). It is known that viable virus may be excreted by diseased rodents with urine or faeces (6). In 1974 antibodies to orthopoxviruses were detected in *Rhombomys opimus* and *Citellus Fuleris* in Turkmenia, and a virus identical with cowpox virus was isolated (7, 8).

Table

Rodent species	No. tested	No. of positives	Titres of virus-neutralizing antibodies				
			10	20	40	80	160
<i>Rattus norvegicus</i>	170	3 (1.7 %)	0	2	0	1	0
<i>Meriones lybicus</i>	54	5 (9.2 %)	1	0	1	2	1

Evidence that rodents are carriers of cowpox virus was obtained in Turkmenia. We undertook examinations of wild rodents of some regions of the Georgian Soviet Socialist Republic. Blood sera (170 samples) and washings (431 samples) from thoracic cavity after the removal of lungs and heart were tested in neutralization reaction on chorionallantoic chick embryo membrane (9). The results are shown in the Table. Antibodies to orthopoxviruses were detected in 3 *Rattus norvegicus* species caught in Kolkhida Depression and in 5 *Meriones lybicus* species caught near Dzhandar village of Gardaban region. No antibodies were found in any of the 195 *Microtus arvalis*, 85 *Microtus socialis*, 28 *Sorex sp.* and *Apodemus sylvaticus*. To confirm the hypothesis on the role of rodents as cowpox virus reservoirs (10) it would be appropriate to continue the studies on orthopoxvirus infection in both synanthropic and exanthropic (wild) rodents in the Georgian S.S.R.

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