

ABSTRACT

Three hundred and eighty nine bird sera were collected from an area with a high percentage of St. Louis encephalitis immunity in the human population. Haemagglutination-inhibition and neutralization tests showed 17% of wild birds and 38% of domestic birds positive to St. Louis.

One isolation of St. Louis encephalitis was made from a wild bird. Conversion in sentinel and local chickens showed the greatest St. Louis activity from March to August. Most nestlings were found at this time, and doubtless are associated with the increased virus activity. Nestlings of Mimus polyglottos, the Jamaican Nightingale, provided the one isolate, and their high antibody rate indicates their importance in the transmission cycle; ground feeding species of wild birds and chickens are also important. St. Louis virus and antibody development were studied in laboratory infected chickens.

Collection from birds and their nests revealed 10 species of haematophagus arthropods, including 8 mites, one tick, and one Philornis maggot. Culex nigripalpus was the most common mosquito biting at 20 feet above the ground.

Fifteen other isolates were made from birds. Thirteen of these were Coxsackie-like viruses, related to an unidentified virus from a human fever case; 2 were dissimilar to the 13, but were not characterised sufficiently.