

inoculum. This animal showed no sign of susceptibility to the virus until the 10th day after inoculation, when partial corneal opacity of the left eye appeared, becoming complete 2 days later. No further observations were possible since it became necessary at that time to kill the bear. However, the animal did exhibit intranuclear inclusions of fox encephalitis virus in the corneal endothelium. The aqueous humor was bacteriologically sterile.

A third black bear, which was half grown,

was inoculated intramuscularly with 5 cc of 20% virus but did not develop observable symptoms.

Conclusions. The intra-ocular inoculation of two bears and the intramuscular injection of a third with fox encephalitis virus indicate that the black bear (*Euarctos americanus*) is only slightly susceptible to this virus infection. Since the bear, like the raccoon, is an offshoot of the canines, the pathogenic properties of fox encephalitis virus derived from foxes seem sharply confined to the canine family.

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Two Related Salmonella Types: *S. luciana* and *S. marseille*.*

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A. Salmonella luciana was isolated by Mrs. Mildred Galton from the feces of a normal food handler. The organism fermented glucose, xylose, arabinose, rhamnose, maltose, cellobiose, trehalose, mannitol, sorbitol, and dulcitol with production of acid and gas. Lactose, sucrose, inositol, and salicin were not fermented. The culture utilized *d*, *l*, and *i*-tartrate, mucate, and citrate. Hydrogen sulfide was produced but indol was not formed nor was gelatin liquefied.

The organism was agglutinated to the titre of, and absorbed all agglutinins from *S. aberdeen* O serum. Its somatic antigens are XI.

S. luciana was diphasic and the H antigens of phase I were identical with the H antigens of *S. paratyphi* A (a). The antigens of phase 2 were identical with phase 2 of *S. glostrup* (e,n,z₁₅...). The antigenic formula of *S. luciana* is XI:a-e,n,z₁₅...

B. Salmonella marseille was isolated from the stools of a person affected with gastro-

enteritis, by Captain W. B. Sutton of the 4th Medical Laboratory, U. S. Army. Its biochemical properties differed from those of *S. luciana* only in that it produced acid from raffinose after 9 days incubation and it did not utilize *i*-tartrate.

The somatic antigens of *S. marseille* were identical with those of *S. aberdeen* (XI). The culture was diphasic and phase 1 resembled that of *S. paratyphi* A (a) although when used to absorb *S. paratyphi* A serum a slight residue of agglutinins remained for *S. paratyphi* A, *S. luciana*, and *S. loma-linda*.

Phase 2 of *S. marseille* was agglutinated by serums for all the nonspecific phases of the Kauffmann-White classification. When tested with serums for single factors 2, 3, 5, 6, 7, 10, and 11 it was agglutinated only by serums for factors 3 and 5. In absorption tests phase 2 of *S. marseille* removed all agglutinins from serum derived from phase 2 of *S. thompson* (1,5...). The diagnostic formula of *S. marseille* is XI:a-1,5...

Summary. Two new Salmonella types were described. *S. luciana* (XI:a-e,n,z₁₅...) was recovered from the feces of a normal food handler while *S. marseille* (XI:a-1,5...) was isolated from the stools of a patient affected with gastro-enteritis.

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