SEROLOGY OF NEW MEXICO JAVELINA (Peccari angulatus) FOR EVIDENCE OF SOME ZOONOTIC INFECTIONS

Authors: WOODS, GEORGE T., DONALDS, B. R., SNYDER, W. A., and HANSON, L. E.

Source: Bulletin of the Wildlife Disease Association, 4(4) : 139

Published By: Wildlife Disease Association

URL: https://doi.org/10.7589/0090-3558-4.4.139

SEROLOGY OF NEW MEXICO JAVELINA (Peccari angulatus) FOR EVIDENCE OF SOME ZOONOTIC INFECTIONS

In Southern Arizona and New Mexico, the collared peccary, or javelina, is a member of the bush community of desert wildlife in the Sonora life zone. "This small pig lives in bands of up to 30 or more and will eat almost anything. Its numbers protect it from such predators as bobcats and mountain lions, and its diet lets it survive on whatever the desert has to offer." (Anon. U. S. Govt. Printing Office, 1964).

A javelina hunt was held in the extreme southwest corner of New Mexico during the latter part of February and March 1, 1967. All hunters were required to check in and out of a research station supervised by officials of the New Mexico Game and Fish Commission. A one-page handout was given to each hunter requesting a blood sample from each javelina killed. The samples were then collected and the sera separated and sent to Urbana, Illinois for serologic examination.

Sera from 20 animals, 21½ months old or older, were tested for antibodies against *Coxiella burnetii* (Q fever), *Leptospira* species *(L. autumnalis, L. canicola, L. grippotyphosa, L. icterohemorrhagiae, L. hardjo,* and *L. pomona), Brucella abortus* and influenza myxoviruses A/Swine/1967/31, A$_2$/Japan/170/62, and the SF$_4$ strain of bovine myxovirus parainfluenza 3.

The capillary tube agglutination test reported by Luoto (J. Immunol., 88: 226-236, 1953) was used for detecting antibodies against *C. burnetii,* the microscopic agglutination test for leptospirosis (Proc. U.S.L.S.A., 140-142, 1960), the standard rapid plate agglutination test for brucellosis, and the microtiter hemagglutination (HI) test of Sever (J. Immunol., 88: 320-329, 1962) for influenza and parainfluenza antibodies. All sera were inactivated by heating at 56 C for 30 minutes and treated with trypsin and potassium periodate before conducting the HI tests.

Serologic tests were negative for all antigens used. This indicated that the javelina in the area had either not been exposed to any of the zoonotic agents under surveillance, or that antibodies were not produced in sufficient quantities to be detectable by the methods used.

GEORGE T. WOODS
B. R. DONALDS
W. A. SNYDER
L. E. HANSON
May 13, 1968

From the Department of Pathology and Hygiene, College of Veterinary Medicine and Agricultural Experiment Station, Urbana, Illinois (Woods and Hanson) and Department of Game and Fish, Sante Fe, New Mexico (Snyder and Donalds). This work was supported in part by a Public Health Service General Research Support Grant. The technical assistance of Rachel Marlowe and John Neff is acknowledged.