

## THE ISOLATION OF AVIAN TUBERCULOSIS FROM A STARLING 1

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Source: Bulletin of the Wildlife Disease Association, 2(3): 84-85

Published By: Wildlife Disease Association

URL: https://doi.org/10.7589/0090-3558-2.3.84

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O. osheroffi, and therefore O. crotalicola Alexander and Alexander, 1957 is not a valid species and should rightly fall into synonymy with O. osheroffi Meggitt, 1934.

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## THE ISOLATION OF AVIAN TUBERCULOSIS FROM A STARLING<sup>1</sup>

On March 27, 1965, a poultryman in southern Rhode Island noticed an inactive, apparently sick starling (Sternus vulgaris vulgaris) near the pens housing his eggproducing chicken flock. He was especially interested in this sick starling because his flock was suffering from an outbreak of a severe respiratory illness. Feeling that feral birds may have been responsible for transmitting the causative organisms, he caught the sick starling and submitted it to the diagnostic laboratory at the University of Rhode Island.

Postmortem examination revealed lesions consistent with a tentative diagnosis of tuberculosis. The liver and spleen were moderately enlarged and contained numerous small (pin-head size) grayish-white nodules. Tissues from these organs were retained for bacteriological and histological examination.

Smears made of the liver nodules revealed a large number of slender, relatively long acid-fast bacteria. This same tissue was used to inoculate tubes of Petragnani and Lowenstein media (Difco). weeks after inoculation, small, cream-colored colonies containing acid-fast bacilli were found on the inoculated slants. Washings of these slants were used for metabolic study as well as for intravenous inoculation of 2 rabbits, 2 guinea pigs and 2 chickens. The experimental animals were se-mimature at the time of inoculation. The isolate was found to be catalase positive. Eighteen days after inoculation, one rabbit and one guinea pig died and the chickens were inactive with ruffled feathers and shrunken, pale combs and wattles. One chicken died 28 days post inoculation. Portions of the liver and spleen from this chicken, as well as inoculated tubes of media were submitted to the National Animal Disease Laboratory, Ames, Iowa, where identification of the organism was made through the courtesy of Dr. W. D. Yoder.

By means of metabolic studies, serological and histological findings, as well as animal inoculations, the isolate from the starling was identified as *Mycobacterium avium*.

This isolation is of interest because feral birds are not commonly infected with tuberculosis. However, when infection is found, it is assumed that it is the result of contact with diseased chickens (Feldman, 1965; Disease of Poultry, Biester & Schwarte). In Rhode Island, avian tuberculosis is not a common infection and only rarely is the disease found in chickens submitted to the diagnostic laboratory. Since tuberculosis is seldom found in commercial chickens in

<sup>&</sup>lt;sup>1</sup>Rhode Island Agricultural Experiment Station Contribution Number 1187

this area, one can conclude that starlings and other feral birds either have some other source of infection, or have a higher incidence of tuberculosis than previously suspected. The finding of a suspected case of tuberculosis in a ruffed grouse (Bonasa umbelus umbelus) (Snoeyenbos, 1966, Bull.

W.D.A., 2:9) strongly supports the latter conclusion. An investigation of this source may be helpful in understanding present patterns of tuberculosis epidemiology.

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