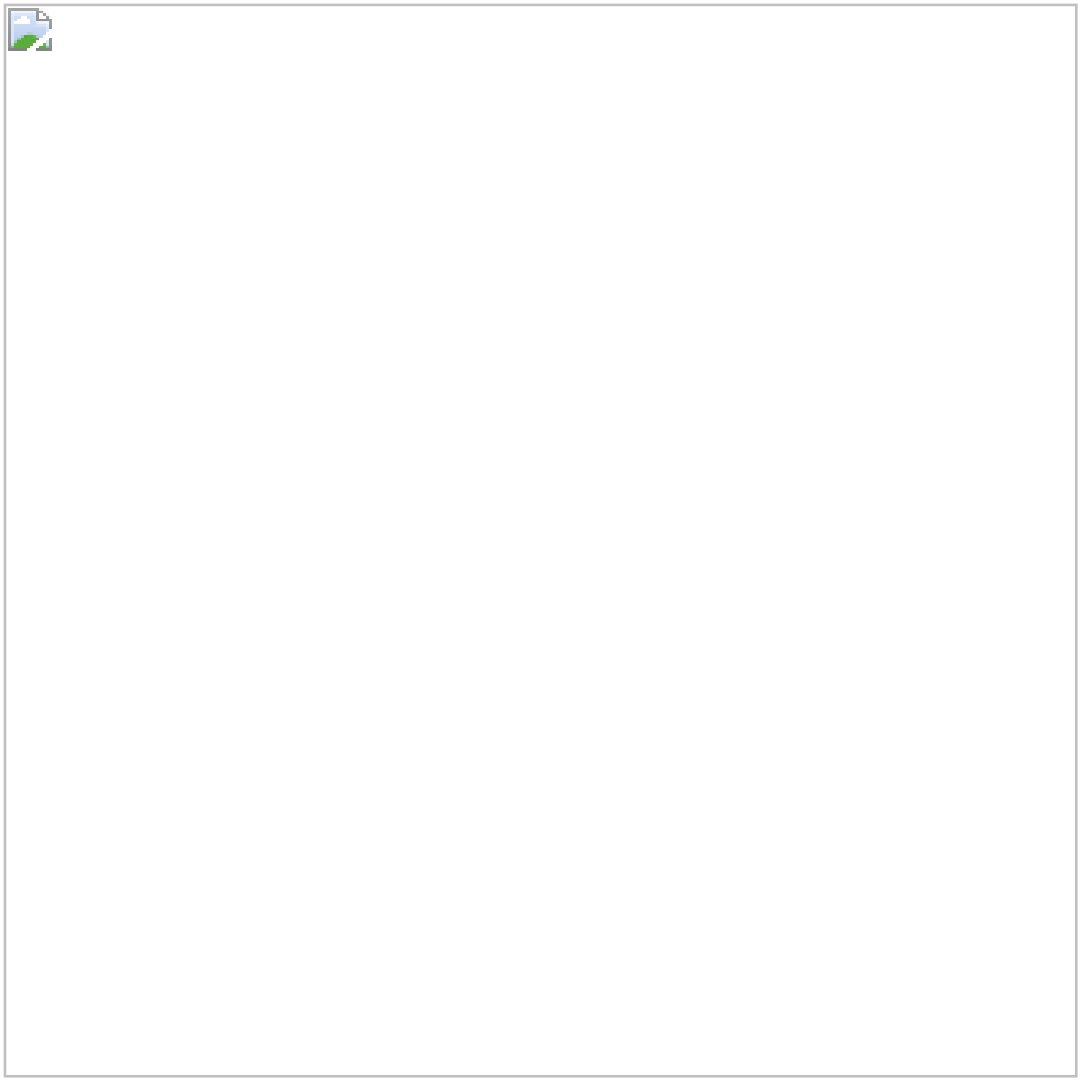

SYNONYMY OF OOCHORISTICA CROTALICOLA ALEXANDER AND ALEXANDER, 1957

Author: WIDMER, E. A.

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amined were found infected with *T. spiralis*. Four of the six infected tissue samples contained less than 100 larvae, one contained 711 larvae, and one contained 32,300 larvae. Histologic studies were not made, and the presence or absence of host reaction to the parasite was not determined.

According to Zimmerman *et al.* (J. Parasitol. 48: 429-432) trichinosis is generally transmitted to wildlife by their ingestion of carcasses of other infected wildlife or of garbage containing raw or inadequately cooked pork scraps. Specific information concerning the method by which raccoons are infected appears to be lacking. It is of interest, however, that Olsen and Robinson (J. Parasitol. 44 (suppl.): 35) have successfully transmitted trichinae by feces from mouse to mouse, rat to rat, mouse to pig, and rat to pig. The greatest number of trichina larvae were passed in the feces during the first 24 hours after ingestion of infected meat. Previously infected animals excreted a higher percentage of the ingested larvae than animals that had never been infected. It therefore seems possible that wild animals may transmit *T. spiralis* to one another through their feces and that previously infected animals with some degree of immunity may be the most efficient transmitters by this route.

D. J. WINSLOW, D. L. PRICE, R. C. NEAFIE, and C. M. HERMAN

Armed Forces Inst. of Pathology, Washing, D. C., and

Patuxent Wildlife Res. Center, Laurel, Md., 4 April, 1966

SYNONYMY OF OOCHORISTICA CROTALICOLA ALEXANDER AND ALEXANDER, 1957

Since the genus *Oochoristica* was proposed in 1898, many authors have studied the characters significant in the recognition of species within this genus (Zschokke, 1905 Z. Wiss. Zool. 83: 53-67; Baylis, 1919, Parasitol. 11: 405-414; Meggitt, 1927, Parasitol. 19: 314-327; Hsü, 1935, Rev. Suisse Zool. 42:477-570; Stunkard and Lynch, 1944; Trans. Am. Microscop. Soc. 63:165-169; Della Santa, 1956, Rev. Suisse Zool. 63: 1-113). In a recent review of the genus, Flores-Barroeta et al. (1958, Rev. Biol. Trop., Univ., Costa Rica, 6: 55-78) noted that many of the descriptions of new species are based on characters of little or no taxonomic significance. This has resulted in a large number of synonyms. He reviewed the works of the above authors and proposed a list of 17 significant characters for use in the identification of the species of *Oochoristica*.

Alexander and Alexander (1957, J. Parasitol. 43: 365-366) described *Oochoristica crotalicola* from *Crotalus viridis helleri* and *Crotalus cerastes laterorepens*. The cestodes resembled *Oochoristica osheroffi* Meggitt, 1934, but differed by possessing a narrower scolex, smaller ovary, more eccentrically located female genital complex and less compactly arranged testes.

In classifying cestodes obtained from *Crotalus viridis* in Colorado, I examined the co-type of *O. osheroffi* and the holotype of *O. crotalicola*. The cestodes from *C. viridis* were identified as *O.*

TABLE 1. *Comparative measurements (in mm) of the scolex and ovary of* O. osheroffi *and* O. crotalicola.

	Width of Scolex			Width of Ovary		
	Range	Mean	SE	Range	Mean	SE
O. crotalicola	0.346	0.346(1)*	—	0.238-0.324	0.267(10)±	.00916
O. osheroffi (co-type slide)	0.389	0.389(1)	—	0.238-0.410	0.302(11)±	.02725
O. osheroffi	0.313-0.697	0.392(29)±	.01273	0.173-0.367	0.287(10)±	.02161

* Figures in parenthesis indicate number of individual measurements.

osheroffi, particular attention being given to the specific characters listed by Alexander and Alexander (1957). Measurements of the scoleces and ovaries are summarized in Table 1.

In the original description of *O. crotalicola*, the width of the scolex is given as 0.31-0.35 mm. My measurement of the scolex width of the holotype slide (0.346) agrees with this. These measurements are less than Meggitt (1934, J. Parasitol. 20: 181-189) gave in the original description for *O. osheroffi* (0.37-0.4). The measurements of *O. osheroffi* scoleces show a diameter range of 0.313-0.697. The size range of the scolex of *O. crotalicola* falls within the size range for *O. osheroffi*.

The width of the ovary of *O. crotalicola* stated in the original description is 0.17-0.24. My measurements, using the holotype slide, show a range of 0.238-0.324. This range does not differ significantly from these of *O. osheroffi*. Though the mean ovarian width for *O. crotalicola* is less than for *O. osheroffi*, it should be pointed out that *O. crotalicola* was described by using only four specimens and fragments of several other worms (Alexander and Alexander, 1957). With so few specimens, it is doubtful that complete intraspecific variations are included.

Alexander and Alexander (1957) observed that the female genital complex in *O. crotalicola* is more eccentrically positioned than in *O. osheroffi*. Flores-Barroeta et al. (1958) do not consider the location (centrally or eccentrically) of the female genital complex within the proglottid of significant taxonomic importance. From my experience the positioning of the female genital complex is variable, depending on distortion of specimens during fixation, dehydration, or even clearing.

Alexander and Alexander (1957) further maintain that *O. crotalicola* differs from *O. osheroffi* in that its testes are less compactly arranged. Extensive observations by me on *O. osheroffi* reveal that the testes assume a more scattered arrangement as the proglottids approach gravidity. Furthermore, it is my contention that a peculiar staining reaction of the individual testis of *O. crotalicola* resulted in dense staining center with indistinct outer membranes. This presents an appearance of scattering which does not actually exist.

On the basis of the evaluation of the characteristics on which *O. crotalicola* is based, it is my opinion that these characteristics are not significantly different from

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.

E. A: WIDMER
Dept. Biology, LaSierra College
LaSierra, Calif., 28 March, 1966

THE ISOLATION OF AVIAN TUBERCULOSIS FROM A STARLING[1]

On March 27, 1965, a poultryman in southern Rhode Island noticed an inactive, apparently sick starling (*Sternus vulgaris vulgaris*) near the pens housing his egg-producing 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). Two 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 semimature 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

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