

## Search for Leprous Infection in Some Small Wild Animals of Louisiana

TO THE EDITOR:

It has been reported by several workers that wild armadillos (*Dasypus novemcinctus*) have lepromatous leprosy similar to the disease produced in experimental infections with *Mycobacterium leprae* (<sup>4-6</sup>). Each animal with advanced disseminated disease has approximately 200 g of infected tissue and each gram contains approximately  $10^{10}$  organisms (<sup>3</sup>). Upon death, the armadillo carcass is often eaten by other animals and what is left disintegrates and gets mixed in with the soil. With that much load of infected material in the environment, it is possible that other animals which share the same environment, living in burrows and even consuming dead armadillos, might contract the disease.

In our earlier study it was found that histopathological examination of both ears of those armadillos killed on the road by automobiles was an effective and simple method for surveying wild animals for the leprosy infection (<sup>2</sup>). In that study, 2.02% of the 494 armadillos examined had the disease.

We report here the results of a similar study of four other animals sharing the same environment with armadillos. Both ears from 51 rabbits, 56 nutria, 17 raccoons, and 311 opossums killed on the road by automobiles were collected. Of these, one pair of rabbit ears and eight pairs of opossum ears were decomposed and therefore were discarded. All of the other specimens were fixed in 10% Formalin and processed for paraffin sections; 5  $\mu$ m sections were cut, stained with a modified Fite's stain (<sup>1</sup>), and examined microscopically under oil immersion. The distribution of animals ac-

ording to the parishes in Louisiana is given in The Table.

None of the specimens studied showed acid-fast organisms. Thorns associated with foreign-body reaction and granuloma formation were detected in 2 rabbits, 3 raccoons, and 3 opossums. One specimen from an opossum showed an unidentified fungal granuloma. Granulomatous inflammation with no identifiable etiologic agent was present in the specimens of two nutria and 15 opossums. Skin ulcers were seen in 21 and acute abscesses in six specimens from opossums.

In conclusion, *M. leprae* infection was not detected in samples of four species of ani-

THE TABLE. *Distribution of animals sampled by Louisiana parishes.*

Parish	Rab- bits	Nutria	Rac- coons	Opos- sums
Ascension	32	11	5	185
Iberville	8	1	3	73
East Baton Rouge	6	1	4	34
Livingston	1			1
Tangipahoa			1	2
West Baton Rouge	1			3
Jefferson Davis			1	1
St. Martin	1		2	
St. John the Baptist	1	1	1	1
St. James	1	1		1
St. Charles		20		
Iberia		10		
Terrebonne		6		
St. Mary		5		
West Feliciana				3
East Carroll				3
St. Landry				1
Avoyelles				1
Tensas				1
Madison				1
Total	51	56	17	311

mals, namely, rabbits, nutrias, raccoons, and opossums. Although thorns were present in some of the animals, they were not so frequent as reported in the armadillo (6).

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