

# HUNTER ACCIDENTALLY STUMBLES UPON LEPROSY IN WEST FLORIDA

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## Introduction

- Leprosy is caused by acid-fast bacilli of the *M. leprae* complex, which includes *M. leprae* and *M. lepromatosis*.
- Transmission in the U.S. is rare, but has been documented in hunters who handle wild nine-banded armadillo.
- The origins of *M. leprae* infection among armadillos, the geographic range of the infected animals, and the potential risks infected armadillos present to people have been topics of concern.
- The infection originated amongst armadillos decades before they were ever used in leprosy research, and numerous surveys have confirmed that armadillos in the southern United States are a large natural reservoir for *M. leprae*; its prevalence exceeds 20% in some locales.

## Case Report

- A 54-year-old male with no significant past medical history or foreign travel history presented to the clinic with a diffuse, pruritic rash.
- Patient is a wild boar hunter who handled fresh armadillo carcasses without the use of gloves.
- Patient was born in Pennsylvania and moved to Florida at 6 months of age, no history of overseas travel or recent travel outside of Florida
- This case report demonstrates how a rare zoonotic infection was inadvertently acquired by a human host in West Florida by handling nine-banded armadillos.
- Once diagnosed, these patients are treated with 12-14 months of a multidrug regimen via the National Hansen's Disease Program.

## Graphs

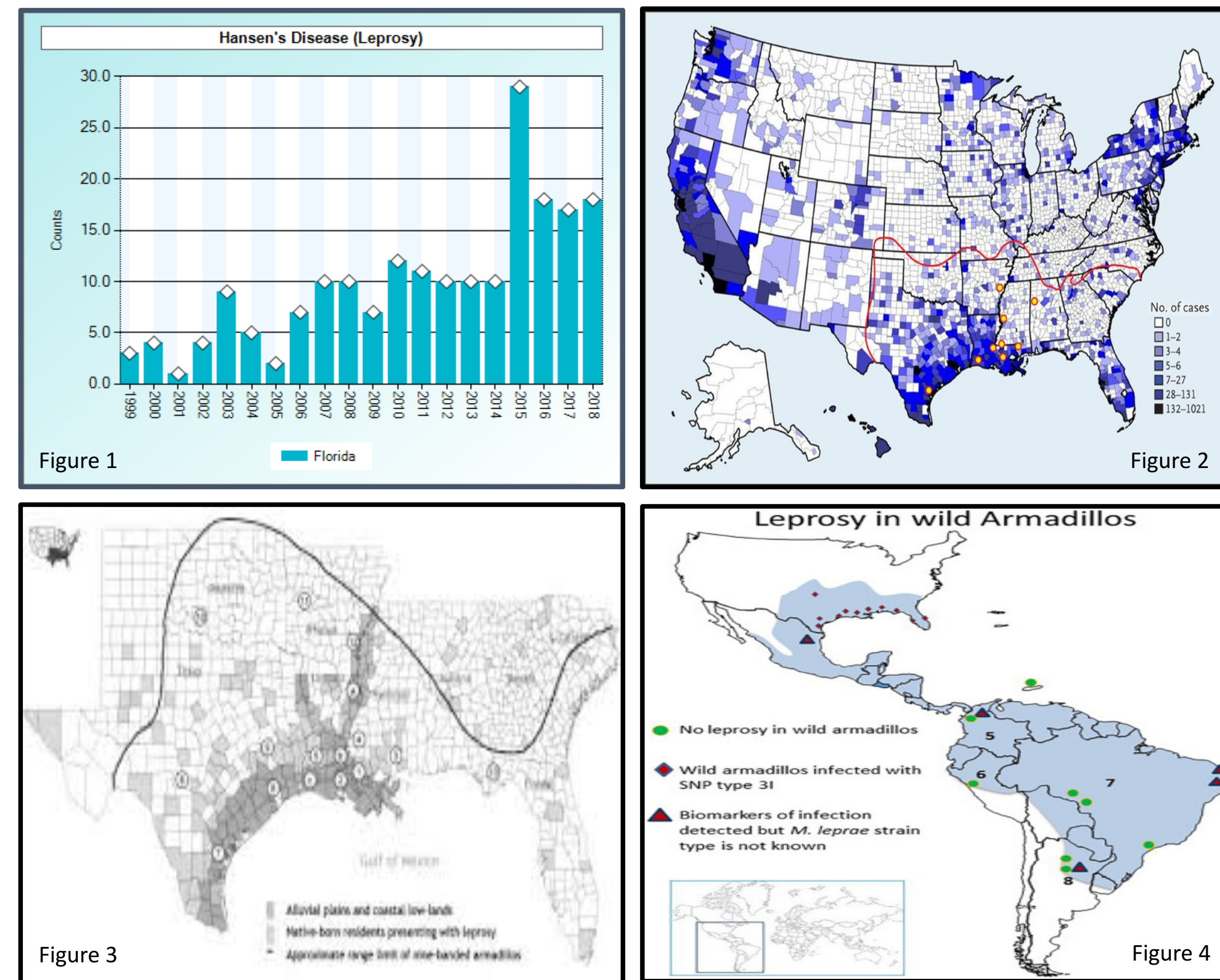


Figure 1. The incidence of Leprosy in Florida from 1999-2018. Figure 2. Distribution of Leprosy in United States. Figure 3. Map of Southeastern US, showing prevalence of armadillos with *M. leprae*. Figure 4. The range of armadillos and the prevalence of *M. leprae*.



Figure 5A, 5B, 5C: Patient presentation demonstrated multiple discrete erythematous plaques with central hypopigmentation and raised discrete borders.

## Results

- PCR was positive for *M. leprae* and negative for *M. lepromatosis*.
- A skin biopsy was positive for borderline lepromatous leprosy with an early type 2 erythema nodosum leprosum reaction.

## Conclusion

- Most of the leprosy cases reported in the U.S. came primarily from Southern states, but 93% of the cases reported in the Americas came from Brazil. In the U.S., approximately 200 cases of leprosy are reported each year, and about 175 of those cases are diagnosed for the first time.
- Florida contributes a small number of these, but recent data is showing an increasing incidence. Studies from other southern U.S. states demonstrate infection with the same strain of *Mycobacterium leprae*, thus confirming the nine-banded armadillo as the main risk factor.
- Because of this bacteria's rarity in the region and the nonspecific symptoms that manifest in a new host, this case report highlights the importance of including leprosy in the differential diagnosis in patients with a high exposure to wildlife in Florida.

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