Text for RBZD

The below table contains the NTDs as listed by the WHO. RBZ is whether this NTD is a known rodent borne zoonosis. Based on whether it is listed as a zoonosis and rodents are discussed as involved in transmission on the CDC website (we may want a better way than that or to just remove this column and say that none are accepted rodent borne diseases). The note is a discription of the potential role of rodents in transmission and associated reference. Think this could be nice to incorporate.

| NTD | RBZ | Note | Ref |
| --- | --- | --- | --- |
| Buruli Ulcer (*Mycobacterium ulcerans*) | No | Transmission route unknown. Potential involvement of small rodents | 1,2 |
| Chagas disease (*Trypanosoma cruzii*) | No | Rodents are known hosts of *T. cruzi* and provide bloodmeals to Triatoma insects, the vectors of Chagas disease | 3,4 |
| Dengue and Chikungunya | No | Dengue viraemia has been reported in synanthropic rodents, contribution to transmission is unknown. Potential involvement of rodents in sylvatic maintenance of Chikungunya but limited evidence. | 5,6 |
| Dracunculiasis | No | Rodents can be experimentally infected, potential paratenic hosts. | 7 |
| Echinococcosis (*Echinococcus granulosus* and *Echinococcus multilocularis*) | No | Primary transmission is assumed to be through contact with pet dogs or other canids. Rodents are important intermediate hosts of *Echinococcus spp.* contributing to prevalence in zoonotic hosts. | 8,9 |
| Foodborne trematodiasis | No | Rodents are potential hosts of *Paragonimus spp.*, *Opisthorchis spp.* and *Clonorchis spp.*, their role in transmission is unknown. | 10–12 |
| Human African trypanosomiasis (*Typanosoma brucei gambiense* and *T. b. rhoesiense*) | No | Rodents have been found to be infected with parasites, their role in transmission is unknown. | 13 |
| Leishmaniasis (*Leishmania spp.*) | No | Rodents have been found have infected in endemic areas, onward infectiousness to Phlebotomus vectors is mixed. | 14,15 |
| Leprosy (*Mycobacterium leprae*) | No | Red squirrels in the UK have been found to be infected, limited testing in other rodent species. | 16,17 |
| Lymphatic filariasis (*Wuchereria bancrofti*, *Brugia malayi* and *Brugia timori*) | N | No known non-human hosts of *W. bancrofti*. *B. malayi* can be transmitted by rodents, their role in maintenance is unknown. | 18,19 |
| Mycetoma | No | Not known to be zoonotic. Potential involvement of ticks in transmission in Sudan. | 20,21 |
| Chromoblastomycosis | No | Not known to be zoonotic. Animal associated outbreaks have been reported in Brazil. | 22 |
| Noma | No | Not considered an infectious disease, caused by commensal bacteria. |  |
| Onchocerciasis (*Onchocerca volvulus*) | No | Not known to be zoonotic. | 23 |
| Rabies | No | Rodents not considered to be important vectors. Outbreaks in rodent populations are assumed spillover during epizootic periods. | 24 |
| Scabies and other ectoparasites (*Sarcoptes scabiei* ) | No | No zoonotic transmission of scabies. Ectoparasites are common in synanthropic rodents. | 25 |
| Schistosomiasis (*Schistosoma mansoni*) | No | Rodents are potentially important reservoir hosts and sites of hybridisation. | 26,27 |
| Soil-transmitted helminthiasis | No | Rodents may contribute to Ascaris transmission as intermediate hosts. Rodents are reservoirs of Toxocara species. | 28,29 |
| Snakebite envenoming | No | Rodent abundance may support higher snake populations but do not directly contribute to human incidents of envenoming. | 30 |
| Taeniasis/cysticercosis (*Taenia solium*) | No | Rodents not involved in transmission. | 31 |
| Trachoma (*Chlamydia trachomatis*) | No | Not known to be zoonotic. | 32 |
| Yaws (*Treponema pallidum*) | No | Rodents not involved in transmission | 33 |

# References

1. Dassi, C. *et al.* Detection of mycobacterium ulcerans in mastomys natalensis and potential transmission in buruli ulcer endemic areas in côte d’ivoire. *Mycobact Dis* **5**, 2161–1068 (2015).

2. Hammoudi, N. *et al.* Disseminated mycobacterium ulcerans infection in wild grasscutters (thryonomys swinderianus), côte d’ivoire. *The American journal of tropical medicine and hygiene* **101**, 491 (2019).

3. Hernández-Cortazar, I. *et al.* Frequency of trypanosoma cruzi infection in synanthropic and wild rodents captured in a rural community in southeast of mexico. *Veterinary medicine international* **2018**, (2018).

4. Velázquez-Ramı́rez, D. D., Pérez de Léon, A. A. & Ochoa-Dı́az-López, H. Review of american trypanosomiasis in southern mexico highlights opportunity for surveillance research to advance control through the one health approach. *Frontiers in Public Health* **10**, 838949 (2022).

5. Gwee, S. X. W., St John, A. L., Gray, G. C. & Pang, J. Animals as potential reservoirs for dengue transmission: A systematic review. *One Health* **12**, 100216 (2021).

6. Ng, L. C. & Hapuarachchi, H. C. Tracing the path of chikungunya virus—evolution and adaptation. *Infection, Genetics and Evolution* **10**, 876–885 (2010).

7. Cairncross, S., Muller, R. & Zagaria, N. Dracunculiasis (guinea worm disease) and the eradication initiative. *Clinical Microbiology Reviews* **15**, 223–246 (2002).

8. Rausch, R. & Schiller, E. L. Hydatid disease (echinococcosis) in alaska and the importance of rodent intermediate hosts. *Science* **113**, 57–58 (1951).

9. Stieger, C., Hegglin, D., Schwarzenbach, G., Mathis, A. & Deplazes, P. Spatial and temporal aspects of urban transmission of echinococcus multilocularis. *Parasitology* **124**, 631–640 (2002).

10. Fan, P., Lu, H. & Lin, L. Experimental transfer of paragonimus westermani from rodents to rodents following subcutaneous and intraperitoneal routes. *Journal of helminthology* **68**, 41–44 (1994).

11. Tangkawattana, S. & Tangkawattana, P. Reservoir animals and their roles in transmission of opisthorchis viverrini. *Advances in Parasitology* **101**, 69–95 (2018).

12. Qian, M.-B., Utzinger, J., Keiser, J. & Zhou, X.-N. Clonorchiasis. *The Lancet* **387**, 800–810 (2016).

13. Mehlitz, D. & Molyneux, D. The elimination of trypanosoma brucei gambiense? Challenges of reservoir hosts and transmission cycles: Expect the unexpected. *Parasite Epidemiology and Control* **6**, e00113 (2019).

14. Sadlova, J. *et al.* Host competence of african rodents arvicanthis neumanni, a. Niloticus and mastomys natalensis for leishmania major. *International Journal for Parasitology: Parasites and Wildlife* **8**, 118–126 (2019).

15. Alcover, M. M., Riera, M. C. & Fisa, R. Leishmaniosis in rodents caused by leishmania infantum: A review of studies in the mediterranean area. *Frontiers in veterinary science* **8**, 702687 (2021).

16. Meredith, A. *et al.* Leprosy in red squirrels in scotland. *The Veterinary Record* **175**, 285 (2014).

17. Ploemacher, T., Faber, W. R., Menke, H., Rutten, V. & Pieters, T. Reservoirs and transmission routes of leprosy; a systematic review. *PLoS neglected tropical diseases* **14**, e0008276 (2020).

18. Nelson, G. S. Filarial infections as zoonoses. *Journal of Helminthology* **39**, 229–250 (1965).

19. Ash, L. R. & Riley, J. M. Development of subperiodic brugia malayi in the jird, meriones unguiculatus, with notes on infections in other rodents. *The Journal of parasitology* 969–973 (1970).

20. Fahal, A. H. & Bakhiet, S. M. Mycetoma and the environment. *PLoS Neglected Tropical Diseases* **17**, e0011736 (2023).

21. Azrag, R. S. *et al.* A possible role for ticks in the transmission of madurella mycetomatis in a mycetoma-endemic village in sudan. *Transactions of The Royal Society of Tropical Medicine and Hygiene* **115**, 364–374 (2021).

22. Rodrigues, A. M., Hoog, G. S. de & Camargo, Z. P. de. Sporothrix species causing outbreaks in animals and humans driven by animal–animal transmission. *PLoS pathogens* **12**, e1005638 (2016).

23. Toé, L., Tang, J., Back, C., Katholi, C. R. & Unnasch, T. R. Vector-parasite transmission complexes for onchocerciasis in west africa. *The Lancet* **349**, 163–166 (1997).

24. Fitzpatrick, J. L., Dyer, J. L., Blanton, J. D., Kuzmin, I. V. & Rupprecht, C. E. Rabies in rodents and lagomorphs in the united states, 1995–2010. *Journal of the American Veterinary Medical Association* **245**, 333–337 (2014).

25. Ho, J., Changbunjong, T., Weluwanarak, T., Hussain, S. & Sparagano, O. The pests of a pest: A systematic review of ectoparasitic fauna among synanthropic rodents in the 21st century with meta-analysis. *Acta Tropica* **215**, 105802 (2021).

26. Duplantier, J.-M. & Sene, M. Rodents as definitive hosts of schistosoma, with special reference to s. Mansoni transmission. in *Micromammals and macroparasites: From evolutionary ecology to management* 527–543 (Springer, 2006).

27. Catalano, S. *et al.* Multihost transmission of schistosoma mansoni in senegal, 2015–2018. *Emerging infectious diseases* **26**, 1234 (2020).

28. Tiner, J. D. Fatalities in rodents caused by larval ascaris in the central nervous system. *Journal of Mammalogy* **34**, 153–167 (1953).

29. Hildebrand, J., Zalesny, G., Okulewicz, A. & Baszkiewicz, K. Preliminary studies on the zoonotic importance of rodents as a reservoir of toxocariasis from recreation grounds in wroclaw (poland). *Helminthologia* **46**, 80–84 (2009).

30. [Echis ocellatus](http://www.toxinology.com/fusebox.cfm?fuseaction=main.snakes.display&id=SN0221). (2024).

31. Flisser, A. *et al.* Taenia solium: Current understanding of laboratory animal models of taeniosis. *Parasitology* **137**, 347–357 (2010).

32. Rodolakis, A. & Mohamad, K. Y. Zoonotic potential of chlamydophila. *Veterinary microbiology* **140**, 382–391 (2010).

33. Chuma, I. S. *et al.* Widespread treponema pallidum infection in nonhuman primates, tanzania. *Emerging Infectious Diseases* **24**, 1002 (2018).