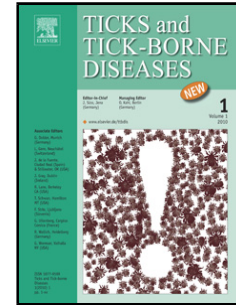


Accepted Manuscript

Title: Prevalence of *Anaplasma phagocytophilum* in small rodents in France

Author: A. Chastagner M. Moinet G. Perez E. Roy K.D. McCoy O. Plantard A. Agoulon S. Bastian A. Butet Y. Rantier H. Verheyden N. Cèbe A. Leblond G. Vourc'h



PII: S1877-959X(16)30078-4
DOI: <http://dx.doi.org/doi:10.1016/j.ttbdis.2016.05.005>
Reference: TTBDIS 671

To appear in:

Received date: 29-5-2015
Revised date: 13-5-2016
Accepted date: 13-5-2016

Please cite this article as: Chastagner, A., Moinet, M., Perez, G., Roy, E., McCoy, K.D., Plantard, O., Agoulon, A., Bastian, S., Butet, A., Rantier, Y., Verheyden, H., Cèbe, N., Leblond, A., Vourc'h, G., Prevalence of *Anaplasma phagocytophilum* in small rodents in France. *Ticks and Tick-borne Diseases* <http://dx.doi.org/10.1016/j.ttbdis.2016.05.005>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.

1 Prevalence of *Anaplasma phagocytophilum* in small rodents in France.

2

3 Chastagner A.^{a*} chastagner.amelie@gmail.com, Moinet M.^b, Perez G.^{d,f}, Roy E.^a, McCoy K.D.^c, Plantard
4 O.^{d,e}, Agoulon A.^{d,e}, Bastian S.^{d,e}, Butet A.^f, Rantier Y.^f, Verheyden H.^g, Cèbe N.^g, Leblond A.^{a,h}, Vourc'h
5 G.^a

6

7 ^a INRA, UR0346 Epidémiologie Animale, F-63122 Saint Genès Champanelle, France

8 ^b Anses, Nancy laboratory for rabies and wildlife, Wildlife Surveillance and Ecoepidemiology Unit (SEEpIAS), F-
9 54220 Malzéville, France

10 ^c UMR 5290 MIVEGEC CNRS-IRD-UM, Centre IRD, F-34394 Montpellier, France

11 ^d INRA, UMR1300 Biologie, Epidémiologie et Analyse de Risque en santé animale, CS 40706, F-44307 Nantes,
12 France

13 ^e LUNAM Université, Oniris, Ecole nationale vétérinaire, agroalimentaire et de l'alimentation Nantes-
14 Atlantique, UMR BioEpAR, F-44307 Nantes, France

15 ^f CNRS, UMR 6553 ECOBIO, Université de Rennes 1, F-35042 Rennes, France

16 ^g CEFS, Université de Toulouse, INRA, F-31326 Castanet Tolosan, France

17 ^h Département Hippique, VetAgroSup, F-69280 Marcy L'Etoile, France

18

19 Abstract

20 *Anaplasma phagocytophilum* is an emerging zoonotic tick-borne pathogen affecting a wide range of
21 mammals. Rodents are suspected to be natural reservoirs for this bacterium, but their role in the
22 epidemiologic cycles affecting domestic animals and wild ungulates has not been demonstrated. This
23 study aimed to improve our knowledge on *A. phagocytophilum* prevalence in *Apodemus sylvaticus*,
24 *A. flavicollis* and *Myodes glareolus* using data collected in 2010 in one area in eastern France and in
25 2012-2013 in two others areas in western France. Rodents were captured in each site and infection
26 was tested using qualitative real-time PCR assays on either blood or spleen samples. Prevalence
27 showed high variability among sites. The highest prevalence was observed in the most eastern site
28 (with an average infection rate of 22.8% across all species), whereas no rodent was found to be PCR
29 positive in the south-west site and only 6.6% were positive in the north-west of France. Finally, a
30 significant increase in prevalence was observed in autumn samples compared to spring samples in
31 the north-west, but no change was found in the other two sites.

32

33 Keywords

34 Tick-borne disease; *Anaplasma*; rodent; prevalence; France

Download English Version:

<https://daneshyari.com/en/article/5546422>

Download Persian Version:

<https://daneshyari.com/article/5546422>

[Daneshyari.com](https://daneshyari.com)