



香港城市大學  
City University of Hong Kong

專業 創新 胸懷全球  
Professional · Creative  
For The World

## CityU Scholars

### Experimental pig-to-pig transmission dynamics for African swine fever virus, Georgia 2007/1 strain- CORRIGENDUM

GUINAT, C.; GUBBINS, S.; VERGNE, T.; GONZALES, J. L.; DIXON, L.; PFEIFFER, D. U.

**Published in:**

Epidemiology and Infection

**Published:** 01/12/2016

**Document Version:**

Final Published version, also known as Publisher's PDF, Publisher's Final version or Version of Record

**License:**

CC BY

**Publication record in CityU Scholars:**

[Go to record](#)

**Published version (DOI):**

[10.1017/S0950268816001667](https://doi.org/10.1017/S0950268816001667)

**Publication details:**

GUINAT, C., GUBBINS, S., VERGNE, T., GONZALES, J. L., DIXON, L., & PFEIFFER, D. U. (2016). Experimental pig-to-pig transmission dynamics for African swine fever virus, Georgia 2007/1 strain-CORRIGENDUM. *Epidemiology and Infection*, 144(16), 3564-3566.  
<https://doi.org/10.1017/S0950268816001667>

**Citing this paper**

Please note that where the full-text provided on CityU Scholars is the Post-print version (also known as Accepted Author Manuscript, Peer-reviewed or Author Final version), it may differ from the Final Published version. When citing, ensure that you check and use the publisher's definitive version for pagination and other details.

**General rights**

Copyright for the publications made accessible via the CityU Scholars portal is retained by the author(s) and/or other copyright owners and it is a condition of accessing these publications that users recognise and abide by the legal requirements associated with these rights. Users may not further distribute the material or use it for any profit-making activity or commercial gain.

**Publisher permission**

Permission for previously published items are in accordance with publisher's copyright policies sourced from the SHERPA RoMEO database. Links to full text versions (either Published or Post-print) are only available if corresponding publishers allow open access.

**Take down policy**

Contact [lbscholars@cityu.edu.hk](mailto:lbscholars@cityu.edu.hk) if you believe that this document breaches copyright and provide us with details. We will remove access to the work immediately and investigate your claim.

## CORRIGENDUM

# Experimental pig-to-pig transmission dynamics for African swine fever virus, Georgia 2007/1 strain– CORRIGENDUM

C. GUINAT, S. GUBBINS, T. VERGNE, J. L. GONZALES, L. DIXON AND  
D. U. PFEIFFER

doi:<http://dx.doi.org/10.1017/S0950268815000862>, Published online: 20 May 2015.

The authors of the above mentioned article [1] were made aware after publication that the likelihood function defined in the R script used to implement the maximum likelihood contained an error.

The error has now been rectified in the original R script. As a result of this correction, the summary should read “Models showed that  $R_0$  is 5·0 [95% confidence intervals (CI): 2·4–9·1] within a pen and 2·7 (95% CI 0·7–5·2) between pens.” Tables 4 and 5 and Figure 2 have been revised and are presented below.

Table 4. *Maximum likelihood estimates (95% confidence intervals) for experimental pig-to-pig transmission parameters for Georgia 2007/1 African swine fever virus strain*

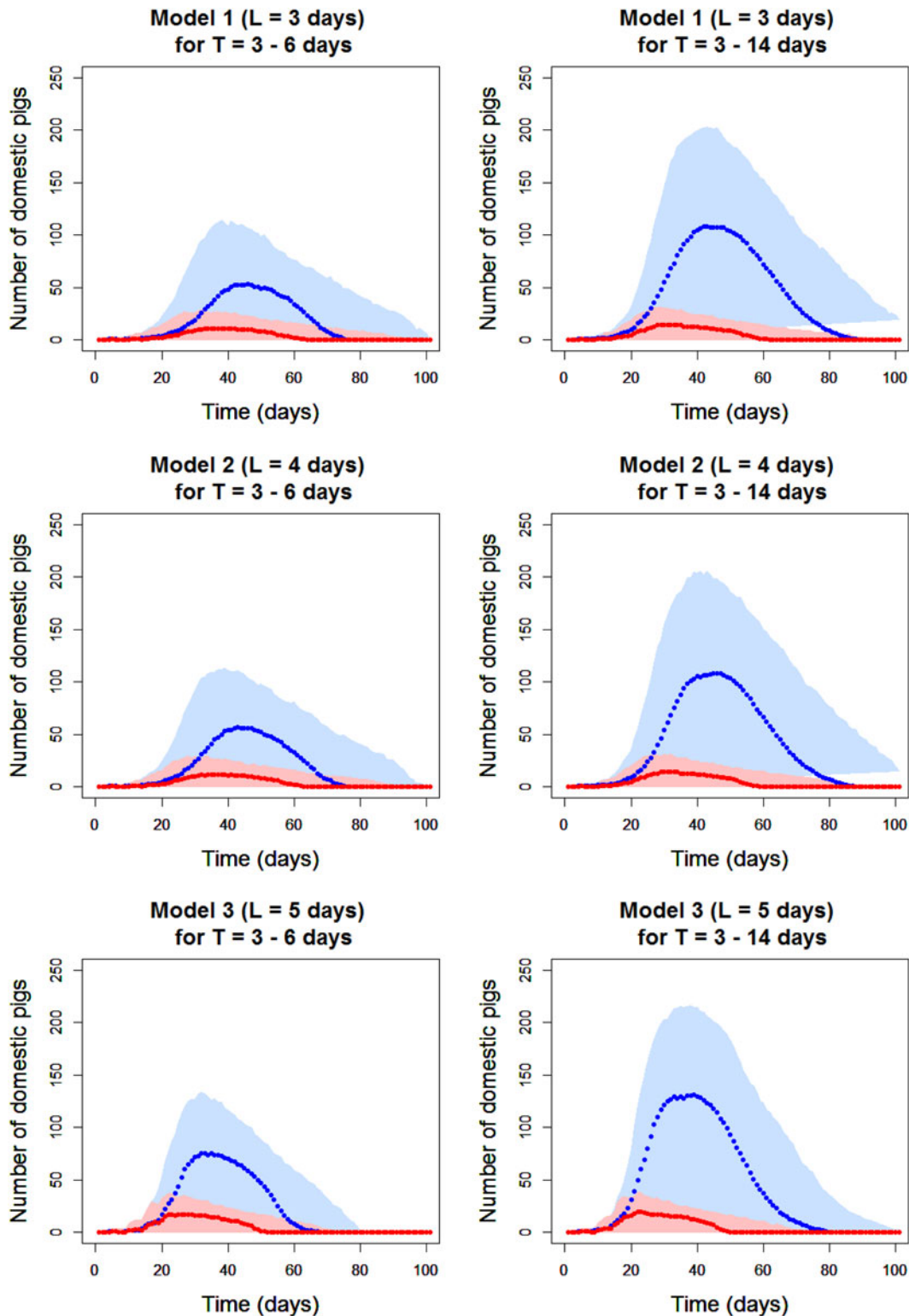
Parameter	Model 1 (L = 3 days)	Model 2 (L = 4 days)	Model 3 (L = 5 days)
$\beta_w$ (per day)	0·60 (0·32–0·89)	0·62 (0·32–0·91)	1·17 (0·58–1·75)
$\beta_b$ (per day)	0·36 (0·05–0·67)	0·38 (0·06–0·70)	0·61 (0·16–1·06)
Minimum infectious period duration, T = 3–6 days			
$R_{0w}$	2·67 (1·43–4·56)	2·71 (1·32–4·56)	5·03 (2·38–9·12)
$R_{0b}$	1·58 (0·13–3·16)	1·66 (0·28–3·31)	2·73 (0·70–5·19)
HIT (%)*	63 (30–78)	63 (19–78)	80 (58–89)
Maximum infectious period duration, T = 3–14 days			
$R_{0w}$	4·87 (1·43–9·95)	4·99 (1·36–10·13)	9·28 (2·84–18·97)
$R_{0b}$	2·80 (0·32–6·51)	3·07 (0·37–6·97)	4·83 (1·01–11·40)
HIT (%)*	79 (30–90)	80 (26–90)	89 (65–95)
AIC†	74·3	73·8	50·9

\*Herd immunity threshold, †Akaike information criterion

Table 5. *Description of outbreaks simulated in a pig unit for Georgia 2007/1 ASFV strain*

Parameter	Model 1 (L = 3 days)	Model 2 (L = 4 days)	Model 3 (L = 5 days)
Infectious period duration, T = 3–6 days			
Probability that outbreak does not occur after introduction of ASFV in the farm	0·18	0·17	0·09
Probability that outbreak does not lead to infection of all population after introduction of ASFV in the farm	0·48	0·43	0·15
Infectious period duration, T = 3–14 days			
Probability that outbreak does not occur after introduction of ASFV in the farm	0·11	0·10	0·05
Probability that outbreak does not lead to infection of all population after introduction of ASFV in the farm	0·21	0·19	0·09

This is an Open Access article, distributed under the terms of the Creative Commons Attribution licence (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted re-use, distribution, and reproduction in any medium, provided the original work is properly cited.



The discussion should read “Model 3, assuming a 5 day-latent period and using presence of live virus in blood as a marker of infectiousness, had the smallest AIC value and was thus the model with the best fit to the data from the transmission experiments.” and “Results demonstrate that, assuming a mean infectious period of 4·5 days, infectious pigs would infect on average 5·0 [95% confidence intervals (CI): 2·4–9·1] animals within their pen and 2·7 (95% CI 0·7–5·2) animals between pens.”

In addition, the authors would like to add information to clarify the methods which should help other researcher in reproducing the results:

First, equation 1 should read:

$$p_t = 1 - \exp \left( - \left( \frac{\beta_w I_{B,t}}{N_{B,t}} + \frac{\beta_b I_{A,t}}{(N_{A,t} + N_{B,t})} \right) \Delta t \right), \text{ with } \Delta t = 2 \text{ days.}$$

Second, an additional model assumption that was not clearly phrased in the original manuscript needs to be considered: animals were considered non-infectious on the day just prior to the day they were first tested positive (even though they were not tested on that day).

Finally, the authors provide with this corrigendum the data tables that were used to estimate the transmission parameters (see Tables S1, S2 and S3).

The authors would like to apologise for any inconvenience caused. They are very grateful to Lasse Engbo Christiansen, Josephine Perch Nielsen and Tinna Stokholm Larsen (DTU, Technical University of Denmark) for their careful review of our work and for bringing this error in the implementation of the methods to our attention.

## SUPPLEMENTARY MATERIAL

For supplementary material accompanying this paper visit <http://dx.doi.org/10.1017/S0950268816001667>.

## REFERENCE

- (1) **Guinat C, Gubbins S, Vergne T, Gonzales J L, Dixon L, Pfeiffer D U.** (2016). Experimental pig-to-pig transmission dynamics for African swine fever virus, Georgia 2007/1 strain. *Epidemiology and Infection*, **144**, pp 25–34. doi:10.1017/S0950268815000862.