Table 2. Summary of JEV experimental infection studies with Australian vertebrate species, and mean hosts competence calculation from experimental infection data.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Species | Maximum infectious dose (units) and method of inoculation | Mean peak viraemia titre  (units) | Overall peak viraemia titre  (units) | Mean  duration  (days) | Percentage viraemic  (total tested) | Mean host competence1  (AUC of quadratic titre curve multiplied by percentage viraemic) | Location and study year |
| Agile wallaby  (*Macropus agilis*) | 5 (TCID50) subcutaneous | 1.6  (TCID50) | 1.6  (TCID50) | 1 | 40%  (5) | 0.2 | Australia, 200038 |
| Black flying fox  (*Pteropus alecto*) | 6.1 (TCID50) intravenous and mosquito | 0  (PFU) | 0  (PFU) | 0 | 0  (10) | 0 | Australia, 200944 |
| Brushtailed possum  (*Trichosurus vulpecula*) | 5 (TCID50) subcutaneous | 2.5  (TCID50) | 3.0  (TCID50) | 2.5 | 100%  (4) | 6.0 | Australia, 200038 |
| Cattle egret  (*Bubulcus ibis*) | 5.8 (PFU) subcutaneous | 2.9  (PFU) | 3.7  (PFU) | 4.5 | 100%  (10) | 10.4 | USA\*, 201245 |
| Chicken  (*Gallus domesticus*) | 5.8 (PFU) subcutaneous; 1.3 (PFU) subcutaneous | 3.4  (PFU) | 5.0  (PFU) | 3.0 | 65%  (45) | 6.5 | USA, 201245; USA, 201446 |
| Cow  (*Bos taurus*) | 9.2 (LD50) subcutaneous and mosquito | 0  (PFU, LD50) | 0  (PFU, LD50) | 0 | 0  (13) | 0 | Thailand, 197442;  India, 198843 |
| Dog  (*Canis lupus familiaris*) | Mosquito | 0.2  (PFU) | 0.5  (PFU) | 1.0 | 33%  (3) | 0.1 | Thailand, 197442 |
| Domestic duck  (*Anas platyrhynchos domesticus*) | 7.3 (PFU) subcutaneous | 3.6  (PFU) | 6.5  (PFU) | 2.2 | 84%  (86) | 6.5 | USA, 201245; USA, 201446; USA, 201947: China, 202048 |
| Eastern grey kangaroo (*Macropus giganteus*) | 5 (TCID50) subcutaneous | 0  (TCID50) | 0  (TCID50) | 0 | 0  (5) | 0 | Australia, 200038 |
| European starling  (*Sturnus vulgaris*) | 5.8 (PFU) subcutaneous | 2.8  (PFU) | 3.6  (PFU) | 3.9 | 79%  (9) | 7.1 | USA, 201245 |
| Great egret  (*Ardea alba*) | 5.8 (PFU) subcutaneous | 3.8  (PFU) | 4.2  (PFU) | 4.0 | 100%  (2) | 12.7 | USA, 201245 |
|  |  | 1.8  (LD50) | 1.8  (LD50) | 2.0 | 100%  (1) | 3.6 | Japan, 195810 |
| Horse  (*Equus caballus*) | Mosquito | 1.6  (LD50) | 2.7  (LD50) | 2.0 | 67  (3) | 2.2 | USA, 196435 |
| House sparrow  (*Passer domesticus*) | 5.8 (PFU) subcutaneous | 2.4  (PFU) | 3.7  (PFU) | 6.8 | 73  (18) | 9.7 | USA, 201245 |
| Intermediate egret  (*Ardea intermedia*) | 4.3 (LD50) subcutaneous | 2.8  (LD50) | 2.8  (LD50) | 2.0 | 100  (1) | 5.6 | Australia, 198313 |
| Pig  (*Sus scrofa domesticus*) | Mosquito (PFU); 6.9 (LD50) subcutaneous; 7.0 (TCID50); Mosquito | 1.0  (PFU) | 2.0  (PFU) | 2.0 | 50%  (2) | 0.7 | Thailand, 197442 |
|  |  | 2.3   (LD50) | 3.5  (LD50) | 2.3 | 100%  (9) | 5.2 | Japan, 195911 |
|  |  | 3.4  (TCID50) | 5.1  (TCID50) | 3.3 | 100%  (39) | 9.7 | Switzerland, 201639;  China, 201841; USA, 201840; India, 196936;  Australia, 200149 |
| Plumed egret  (*Ardea plumifera*) | 4.9 (LD50) mosquito (viraemia in mosquito tested) | 1.7  (LD50) | 1.8  (LD50) | 2 | 100%  (2) | 3.4 | Japan, 195810 |
| Ring necked pheasant  (*Phasianus colchicus*) | 5.8 (PFU) subcutaneous | 0  (PFU) | 0  (PFU) | 0 | 0  (10) | 0 | USA, 201245 |
| Rock pigeon  (*Columba livia*) | 5.8 (PFU) subcutaneous | 3.4  (PFU) | 4.3  (PFU) | 3.5 | 90%  (10) | 9.2 | USA, 201245 |
| Nankeen night heron  (*Nycticorax caledonicus*) | 4.3 (LD50) subcutaneous | 2.8  (LD50) | 4.8  (LD50) | 2.8 | 71  (7) | 5.0 | Australia, 198313 |
| Tammar Wallaby  (*Macropus eugenii*) | 5.0 (TCID50) subcutaneous | 0  (TCID50) | 0  (TCID50) | 0 | 0  (5) | 0 | Australia, 200038 |
| Water buffalo  (*Bubalus bubalis*) | Mosquito | 0  (PFU, LD50) | 0  (PFU, LD50) | 0 | 0  (4) | 0 | India, 196842; Thailand, 197442 |
| \*USA: United States of America | | | | | | | |