

**S1. Table. A panel of rabies virus partial DNA sequences from Zimbabwe and neighbouring countries included in the phylogenetic analysis performed in this study.**

| Number | Sample Number | Species      | Country    | Province           | Latitude    | Longitude  | Accession number |
|--------|---------------|--------------|------------|--------------------|-------------|------------|------------------|
| 1      | MOZdog633/00  | Canine       | Mozambique | Nampula            | -15,1266347 | 39,2687161 | KM262040         |
| 2      | MOZdog315/04  | Canine       | Mozambique | Maputo             | -25,969248  | 32,731746  | KM262041         |
| 3      | MOZfel131/12  | Feline       | Mozambique | Manica             | -19.5059787 | 33,438353  | KM262046         |
| 4      | g421/06       | Caprine      | Mozambique | Cabo Delgado       | -19.5059787 | 33,438353  | EU123930         |
| 5      | d520/06       | Canine       | Mozambique | Nampula            | -15,1266347 | 39,2687161 | EU123931         |
| 6      | d529/06       | Canine       | Mozambique | Manica             | -19.5059787 | 33,438353  | EU123932         |
| 7      | d804/06       | Canine       | Mozambique | Manica             | -19.5059787 | 33,438353  | EU123934         |
| 8      | 275/91        | Canine       | Zambia     | Unkown             | -15,3875259 | 28,3228165 | GQ983449         |
| 9      | 20948         | Honey badger | Zimbabwe   | Matabeleland North | -18,5331566 | 27,5495846 | AF3041891        |
| 10     | 19571         | Honey badger | Zimbabwe   | Matabeleland North | -18,5331566 | 27,5495846 | AF3041841        |
| 11     | j19319        | Jackal       | Zimbabwe   | Mashonaland West   | -17,4851029 | 29,7889248 | AF177082         |
| 12     | d20548        | Canine       | Zimbabwe   | Mashonaland East   | -18,5871642 | 31,2626365 | AF177061         |
| 13     | j19301        | Jackal       | Zimbabwe   | Mashonaland West   | -17,4851029 | 29,7889248 | AF177081         |
| 14     | d20896        | Canine       | Zimbabwe   | Masvingo           | -20,6241509 | 31,2626365 | AF177062         |
| 15     | d16838        | Canine       | Zimbabwe   | Matabeleland South | -21,052337  | 29,0459926 | AF177058         |

|    |        |        |          |                     |              |            |          |
|----|--------|--------|----------|---------------------|--------------|------------|----------|
| 16 | j14937 | Jackal | Zimbabwe | Mashonaland West    | -17,4851029  | 29,7889248 | AF177077 |
| 17 | j17711 | Jackal | Zimbabwe | Matabeleland North  | -18,5331566  | 27,5495846 | AF177078 |
| 18 | j19344 | Jackal | Zimbabwe | Matabeleland South  | -21,052337   | 29,0459926 | AF303077 |
| 19 | d14702 | Canine | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177053 |
| 20 | d20813 | Canine | Zimbabwe | Mashonaland Central | --16,7644294 | 31,0793704 | AF177063 |
| 21 | j14917 | Jackal | Zimbabwe | Mashonaland West    | -17,4851029  | 29,7889248 | AF177076 |
| 22 | d16234 | Canine | Zimbabwe | Matabeleland North  | -18,5331566  | 27,5495846 | AF177054 |
| 23 | j21533 | Jackal | Zimbabwe | Mashonaland West    | -17,4851029  | 29,7889248 | AF177085 |
| 24 | j24137 | Jackal | Zimbabwe | Mashonaland Central | --16,7644294 | 31,0793704 | AF177095 |
| 25 | j19286 | Jackal | Zimbabwe | Masvingo            | -20,6241509  | 31,2626365 | AF177080 |
| 26 | d20034 | Canine | Zimbabwe | Manicaland          | -18,9216386  | 32,1746049 | AF177059 |
| 27 | j17722 | Jackal | Zimbabwe | Matabeleland South  | -21,052337   | 29,0459926 | AF177079 |
| 28 | d24465 | Canine | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177074 |
| 29 | j23667 | Jackal | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177093 |
| 30 | j23357 | Jackal | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177090 |
| 31 | j22642 | Jackal | Zimbabwe | Mashonaland Central | --16,7644294 | 31,0793704 | AF177088 |
| 32 | j21147 | Jackal | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177084 |
| 33 | j21819 | Jackal | Zimbabwe | Mashonaland Central | --16,7644294 | 31,0793704 | AF177087 |
| 34 | j21111 | Jackal | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177083 |

|    |        |        |          |                     |              |            |          |
|----|--------|--------|----------|---------------------|--------------|------------|----------|
| 35 | j23578 | Jackal | Zimbabwe | Mashonaland West    | -17,4851029  | 29,7889248 | AF177092 |
| 36 | j24307 | Jackal | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177096 |
| 37 | d21467 | Canine | Zimbabwe | Mashonaland East    | -18,5871642  | 31,2626365 | AF177066 |
| 38 | j23275 | Jackal | Zimbabwe | Mashonaland Central | --16,7644294 | 31,0793704 | AF177089 |
| 39 | d21428 | Canine | Zimbabwe | Manicaland          | -18,9216386  | 32,1746049 | AF177065 |
| 40 | d24299 | Canine | Zimbabwe | Manicaland          | -18,9216386  | 32,1746049 | AF177073 |
| 41 | j23895 | Jackal | Zimbabwe | Manicaland          | -18,9216386  | 32,1746049 | AF177094 |
| 42 | d24132 | Canine | Zimbabwe | Manicaland          | -18,9216386  | 32,1746049 | AF177072 |
| 43 | j19273 | Jackal | Zimbabwe | Masvingo            | -20,6241509  | 31,2626365 | AF303076 |
| 44 | j19901 | Jackal | Zimbabwe | Masvingo            | -20,6241509  | 31,2626365 | AF303075 |
| 45 | d19347 | Canine | Zimbabwe | Midlands            | --19,0552009 | 29,6035494 | AF303079 |
| 46 | d19385 | Canine | Zimbabwe | Masvingo            | -20,6241509  | 31,2626365 | AF303080 |
| 47 | d24505 | Canine | Zimbabwe | Masvingo            | -20,6241509  | 31,2626365 | AF177075 |
| 48 | d19366 | Canine | Zimbabwe | Masvingo            | -20,6241509  | 31,2626365 | AF303078 |
| 49 | d16387 | Canine | Zimbabwe | Midlands            | --19,0552009 | 29,6035494 | AF177057 |
| 50 | d16254 | Canine | Zimbabwe | Manicaland          | -18,9216386  | 32,1746049 | AF177055 |
| 51 | d22547 | Canine | Zimbabwe | Mashonaland Central | --16,7644294 | 31,0793704 | AF177070 |
| 52 | d21057 | Canine | Zimbabwe | Mashonaland Central | --16,7644294 | 31,0793704 | AF177064 |
| 53 | d20519 | Canine | Zimbabwe | Midlands            | --19,0552009 | 29,6035494 | AF177060 |

|    |                     |        |          |                    |               |            |          |
|----|---------------------|--------|----------|--------------------|---------------|------------|----------|
| 54 | d21869              | Canine | Zimbabwe | Mashonaland East   | -18,5871642   | 31,2626365 | AF177069 |
| 55 | d16347              | Canine | Zimbabwe | Manicaland         | -18,9216386   | 32,1746049 | AF177056 |
| 56 | d21570              | Canine | Zimbabwe | Matabeleland North | -18,5331566   | 27,5495846 | AF177068 |
| 57 | <b>ZIMdg65/14</b>   | Canine | Zimbabwe | Mashonaland East   | -18,5871642   | 31,2626365 | MF425791 |
| 58 | <b>ZIMdg71/14</b>   | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425792 |
| 59 | <b>ZIMfel168/14</b> | Feline | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425793 |
| 60 | <b>ZIMdg187/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425794 |
| 61 | <b>ZIMdg199/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425795 |
| 62 | <b>ZIMdg200/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425796 |
| 63 | <b>ZIMdg203/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425797 |
| 64 | <b>ZIMdg314/14</b>  | Canine | Zimbabwe | Mashonaland East   | -18,5871642   | 31,2626365 | MF425798 |
| 65 | <b>ZIMdg341/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425799 |
| 66 | <b>ZIMdg355/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425800 |
| 67 | <b>ZIMdg444/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425801 |
| 68 | <b>ZIMdg492/14</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425802 |
| 69 | <b>ZIMdg39/15</b>   | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425803 |
| 70 | <b>ZIMdg51/15</b>   | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425804 |
| 71 | <b>ZIMdg239/15</b>  | Canine | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425805 |
| 72 | <b>ZIMfel283/15</b> | Feline | Zimbabwe | Harare             | - -17,8251657 | 31,0335099 | MF425806 |

|    |                                 |        |          |                  |               |            |          |
|----|---------------------------------|--------|----------|------------------|---------------|------------|----------|
| 73 | <b>ZIMdg307/15</b>              | Canine | Zimbabwe | Harare           | - -17,8251657 | 31,0335099 | MF425807 |
| 74 | <b>ZIMdg406/15</b>              | Canine | Zimbabwe | Harare           | - -17,8251657 | 31,0335099 | MF425808 |
| 75 | <b>ZIMdg424/15</b>              | Canine | Zimbabwe | Mashonaland East | -18,5871642   | 31,2626365 | MF425809 |
| 76 | <b>ZIMdg427/15</b>              | Canine | Zimbabwe | Harare           | - -17,8251657 | 31,0335099 | MF425810 |
| 77 | <b>ZIMdg464/15</b>              | Canine | Zimbabwe | Harare           | - -17,8251657 | 31,0335099 | MF425811 |
| 78 | <b>ZIMdg515/15</b>              | Canine | Zimbabwe | Harare           | - -17,8251657 | 31,0335099 | MF425812 |
| 79 | <b>ZIMbov245/16</b>             | Bovine | Zimbabwe | Harare           | - -17,8251657 | 31,0335099 | MF425813 |
| 80 | 192J09 (Phylogenetic tree root) | Jackal | Namibia  | Kunene           | -19,4086317   | 13,914399  | JX473839 |

Samples in bold text denotes the novel sequences generated in this study