

Serotype: O	Report date: 10/11/2008
WRL Ref No: BHU/2/2008	Reported by: N.J. Knowles
Sender Ref: 1021	Checked by: D.P. King
Date collected: 12/09/2008	
Date received by WRLFMD: 06/10/2008	Topotype: ME-SA
Date received for sequencing: 21/10/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: BHU08-02.SEQ
Material used: BTy2	Date sequence last updated: 10/11/2008
Region sequenced: VP1	Total no. of comparisons: 1813
RT-PCR primers: O-1C244F/EUR-2B52R;	Min. no. of nt for comparison: 300
O-1C272F/EUR-2B52R	Total turn-around time: 35 days
No. of Nt determined: 639	Sequencing time: 20 days
No. of ambiguities: 0	
Gene length: 639	

Comments:

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/BHU/3/2008	BHU08-03	639	637	0	99.69	0.31
2	O/MAY/2/2004	MAY04-02	608	577	0	94.9	5.1
3	O/NEP/2/2003	NEP03-02	638	605	1	94.83	5.17
4	O/MAY/3/2004	MAY04-03	606	574	0	94.72	5.28
5	O/AFG/120/2004* (EF457984)	AFG04-AA	639	604	0	94.52	5.48
6	O/AFG/201/2004* (EF457985)	AFG04-AB	639	604	0	94.52	5.48
7	O/BHU/30/2004 (DQ165045)	BHU04-30	639	604	0	94.52	5.48
8	O/BHU/31/2004 (DQ164869)	BHU04-31	639	604	0	94.52	5.48
9	O/BHU/49/2003 (DQ164867)	BHU03-49	639	604	0	94.52	5.48
10	O/NEP/4/2003 (DQ165059)	NEP03-04	639	604	0	94.52	5.48

#### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99 (AJ294927)	TAW99-02	639	587	0	91.86	8.14
2	O/IND/53/79 [AF292107]	IND79A53	639	565	0	88.42	11.58
3	O/IND/R2/75* [AF204276]	IND75--A	639	561	0	87.79	12.21
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	557	0	87.17	12.83
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	548	0	85.76	14.24
6	O/TAI/189/87* [TRRL]	TAI87-AC	639	547	0	85.6	14.4
7	O/MOR/1/91	MOR91-01	639	542	0	84.82	15.18
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	515	0	80.59	19.41
9	O/HKN/6/83 (AJ294919)	HKN83-06	637	513	2	80.53	19.47
10	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	498	0	77.93	22.07

nt, nucleotides

\*, not a WRLFMD reference number

Serotype: O	Report date: 10/11/2008
WRL Ref No: BHU/3/2008	Reported by: N.J. Knowles
Sender Ref: 1022	Checked by: D.P. King
Date collected: 12/09/2008	
Date received by WRLFMD: 06/10/2008	Topotype: ME-SA
Date received for sequencing: 21/10/2008	Genotype/strain: PanAsia-2
Species: Cattle	Sequence filename: BHU08-03.SEQ
Material used: BTy1	Date sequence last updated: 10/11/2008
Region sequenced: VP1	Total no. of comparisons: 1813
RT-PCR primers: O-1C244F/EUR-2B52R;	Min. no. of nt for comparison: 300
O-1C272F/EUR-2B52R	Total turn-around time: 35 days
No. of Nt determined: 639	Sequencing time: 20 days
No. of ambiguities: 0	
Gene length: 639	

Comments:

#### Ten Most Closely Related Viruses

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/BHU/2/2008	BHU08-02	639	637	0	99.69	0.31
2	O/NEP/2/2003	NEP03-02	638	607	1	95.14	4.86
3	O/MAY/2/2004	MAY04-02	608	577	0	94.9	5.1
4	O/AFG/120/2004* (EF457984)	AFG04-AA	639	606	0	94.84	5.16
5	O/AFG/201/2004* (EF457985)	AFG04-AB	639	606	0	94.84	5.16
6	O/BHU/30/2004 (DQ165045)	BHU04-30	639	606	0	94.84	5.16
7	O/BHU/31/2004 (DQ164869)	BHU04-31	639	606	0	94.84	5.16
8	O/BHU/49/2003 (DQ164867)	BHU03-49	639	606	0	94.84	5.16
9	O/NEP/4/2003 (DQ165059)	NEP03-04	639	606	0	94.84	5.16
10	O/MAY/3/2004	MAY04-03	606	574	0	94.72	5.28

#### Relationships to Reference Virus Strains

Pos.	Virus name	Filename	No. nt compared	No. nt matched	No. of ambiguities	% Identity	% Difference
1	O/TAW/2/99 (AJ294927)	TAW99-02	639	589	0	92.18	7.82
2	O/IND/53/79 [AF292107]	IND79A53	639	567	0	88.73	11.27
3	O/IND/R2/75* [AF204276]	IND75--A	639	563	0	88.11	11.89
4	O1/Manisa/TUR/69 (AJ251477)	TUR69--E	639	559	0	87.48	12.52
5	O/ISR/2/88 (DQ164899)	ISR88-02	639	550	0	86.07	13.93
6	O/TAI/189/87* [TRRL]	TAI87-AC	639	549	0	85.92	14.08
7	O/MOR/1/91	MOR91-01	639	544	0	85.13	14.87
8	O/PHI/5/95 (DQ164946)	PHI95-05	639	517	0	80.91	19.09
9	O/HKN/6/83 (AJ294919)	HKN83-06	637	515	2	80.85	19.15
10	O1/BFS 1860/UK/67 (J02185)	UKG67--A	639	500	0	78.25	21.75

nt, nucleotides

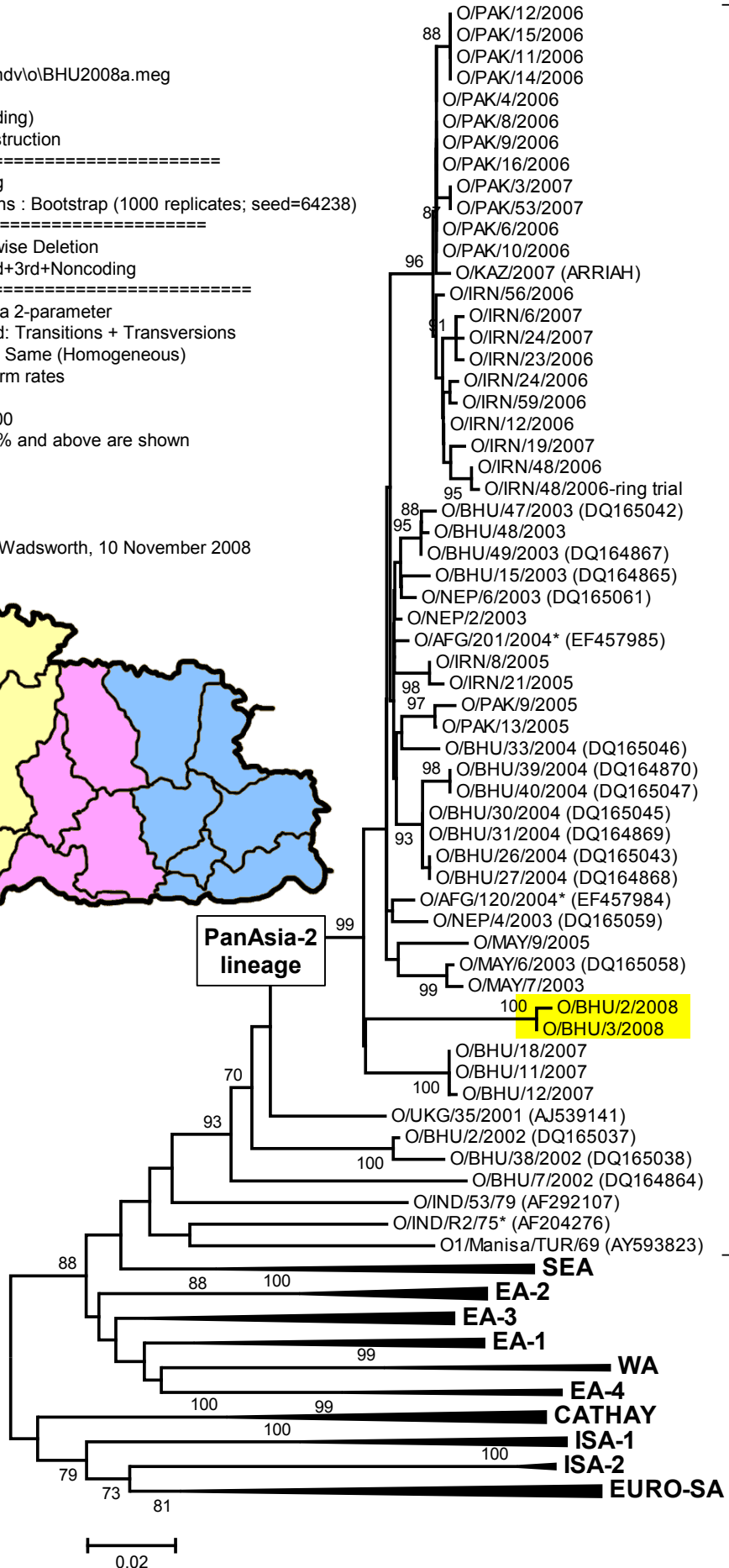
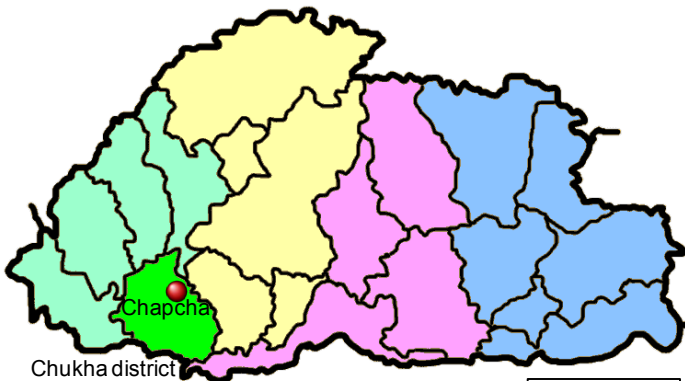
\*, not a WRLFMD reference number

# Report on FMDV O from Bhutan in 2008

Software: MEGA 4.0  
 No. of Taxa : 89  
 Data File : n:\levd\meg\db\fmvd\o\BHU2008a.meg  
 Data Title : Bhutan 2008  
 Data Type : Nucleotide (Coding)  
 Analysis : Phylogeny reconstruction  
 Tree Inference : =====  
 ->Method : Neighbor-Joining  
 ->Phylogeny Test and options : Bootstrap (1000 replicates; seed=64238)  
 Include Sites : =====  
 ->Gaps/Missing Data : Pairwise Deletion  
 ->Codon Positions : 1st+2nd+3rd+Noncoding  
 Substitution Model : =====  
 ->Model : Nucleotide: Kimura 2-parameter  
 ->Substitutions to Include : d: Transitions + Transversions  
 ->Pattern among Lineages : Same (Homogeneous)  
 ->Rates among sites : Uniform rates  
 No. of Sites : 642 (VP1)  
 No Of Bootstrap Reps = 1000  
 Only bootstrap values of 70% and above are shown

\* , not a WRLFMD Ref. No.

N.J. Knowles, K. Ebert & J. Wadsworth, 10 November 2008



ME-SA