

Detection of CMTV-like ranavirus following a *Rana temporaria* mass mortality event in a northern Italian alpine lake

MATTEO RICCARDO DI NICOLA^{1,#,*}, CHIARA BELTRAMO^{1,#}, PAOLO PASTORINO¹, GIUSEPPE ESPOSITO¹, ANNA CERULLO¹, ARIANNA MELETIADIS¹, MARINO PREARO¹, SIMONE PELETTO^{1,§}, PIER LUIGI ACUTIS^{1,§}.

¹*Istituto Zooprofilattico Sperimentale del Piemonte, Liguria e Valle d'Aosta, Via Bologna 148, 10154 Torino*

[#]*These authors share first authorship*

[§]*These authors share last authorship*

^{*}*Corresponding author. Email: matteoriccardo.dinicola@izspltv.it*

SUPPLEMENTARY MATERIAL

Table S1. List of the whole genomes of ranaviruses used for the phylogenetic analysis. Positions of the sequences for MCP and DNA polymerase genes in the related genome were indicated.

Santee-Cooper ranavirus (SCRV); Largemouth bass virus isolate Alleghany 12-343 (LMBV-Alleghany 12-343); Largemouth bass virus isolate Pine 14-204 (LMBV-Pine 14-204); Largemouth bass virus isolate LMBV-QD25 (LMBV-QD25); Largemouth bass virus isolate WVL21117 (LMBV-WVL21117); Singapore grouper iridovirus (SGIV); Singapore grouper iridovirus (SGIV); Singapore grouper iridovirus (SGIV-Hainan); Grouper iridovirus (GIV); Singapore grouper iridovirus isolate GIV-RP (GIV-RP); Frog virus 3 (FV3); Frog virus 3 strain KTC3 (FV3/KTC3); Frog virus 3 isolate Rana (FV3-Rana); Frog virus 3 strain Rana-Bra-17 (FV3-Rana-Bra-17); Frog virus 3 isolate SSME (FV3-SSME); German gecko ranavirus (GGRV); Rana grylio iridovirus (RGV); Tiger frog virus (TFV); Tiger frog virus isolate A-21 (TFV-A-21); Tiger frog virus isolate AV9803 (TFV-AV9803); Bohle iridovirus (BIV); Ambystoma tigrinum virus (ATV); Ambystoma tigrinum virus isolate CAP (ATV-CAP); Ranavirus ambystoma1 isolate 2013-LL3 (ATV-2013-LL3); Epizootic haematopoietic necrosis virus (EHNV); Epizootic haematopoietic necrosis virus isolate V109 (EHNV-V109); European catfish virus strain 14612/2012 (ECV-14612/2012); European catfish virus strain 13051/2012 (ECV-13051/2012); European sheatfish virus (ESV); Common midwife toad virus (CMTV); Andrias davidianus ranavirus isolate 1201 (ADRV-1201); Andrias davidianus ranavirus isolate 2010SX (ADRV-2010SX); Common midwife toad virus -E isolate Mesotriton alpestris/2008/E (CMTV-ES); Common midwife toad virus -NL isolate Pelophylax kl. esculentus/2013/NL (CMTV-NL); Common midwife toad virus isolate Pe/2016/Netherlands/UU3160714042 (CMTV-Pe); Common midwife toad virus isolate Lv/2015/Netherlands/UU315625026 (CMTV-Lv); Common midwife toad virus isolate Pf/2011/Netherlands/UU3120627007 (CMTV-Pf); Common midwife toad virus isolate Pr/2011/Netherlands/UU3110504006 (CMTV-Pr); Tortoise ranavirus 1 isolate 1 (882/96) (ToRV1); Pike-perch iridovirus isolate SLU14001 (PPIV); Testudo hermanni ranavirus isolate CH8/96 (THR-

CH8/96); European North Atlantic ranavirus (ENAR); Lumpfish ranavirus isolate F24-15 (LMRV-F24-15); Lumpfish ranavirus isolate V4955 (LMRV-V4955); Lumpfish ranavirus isolate F140-16 (LMRV-F140-16); Ranavirus maximus isolate SMA15001 (Rmax); Cod iridovirus isolate GAM1400 (CoIV); Short-finned eel ranavirus isolate ANGA14001 (SERV); Lymphocystis disease virus (LCDV).

Species	Sample name	Accession	Origin	Position for MCP gene	Position for DNA pol gene	Reference
SCRV	LMBV- Alleghany 12- 343	MK681855	USA	98588- 97152	54936- 54440	Unpublished
	LMBV-Pine 14- 204	MK681856	USA	98051- 96615	54899- 54403	Unpublished
	LMBV-QD25	PX463212	China	70272- 71708	27797- 28289	Unpublished
	LMBV- WVL21117	PP526145	USA	38726- 37290	80900- 80408	Quail et al. (2024)
SGIV	SGIV	AY521625	Singapore	67900- 66464	112584- 112085	Song et al. (2004)
	SGIV-Hainan	OM793601	China	66464- 67900	112083- 112579	Unpublished
	GIV	AY666015	Taiwan	57247- 55811	101331- 100832	Tsai et al. (2005)

	GIV-RP	PP085414	China	7425- 8861	52213- 52709	Unpublished
FV3	FV3	AY548484	Unknown	98842- 97405	67704- 67209	Tan et al. (2004)
	FV3-KTC3	MK959606	Canada	82560- 81123	67420- 66925	Vilaça et al. (2019)
	FV3-Rana	PQ109930	Canada	97397- 98834	67201- 67696	Logan et al. (2024)
	FV3-Rana-Bra- 17	MT578298	Brazil	95994- 97431	66811- 67306	Unpublished
	FV3-SSME	KJ175144	USA	96650- 98087	67217- 67712	Morrison et al. (2014)
	GGRV	KP266742	Germany	97365- 95928	67102- 66607	Stöhr et al. (2015)
	RGV	JQ654586	China	98791- 97354	67612- 67117	Lei et al. (2012)
	TFV	AF389451	China	97435- 95998	66133- 65638	He et al. (2002)
	TFV-A-21	MW727505	Chad	98289- 99727	67785- 68280	Box et al. (2021)
	TFV-AV9803	MT512504	Thailand	97222- 98659	66888- 67383	Sriwanayos et al. (2020)
	BIV	KX185156	Australia	97224- 95787	67239- 66744	Hick et al. (2016)

ATV	ATV	AY150217	USA	17591- 16154	48479- 47984	Jancovich et al. (2003)
	ATV-CAP	KR075886	USA	17628- 16191	48392- 47897	Epstein and Storfer (2016)
	ATV-2013-LL3	MK580535	Canada	17680- 16243	48523- 48028	Unpublished
EHN	EHN	FJ433873	Australia	21160- 19723	57557- 57062	Jancovich et al. (2010)
	EHN-V109	MT510740	Australia	20226- 21663	110129- 110624	Hick et al. (2017)
	ECV-	KT989885	Hungary	21458- 20018	57672- 57177	Fehér et al. (2016)
	14612/2012					
	ECV-	KT989884	Hungary	21453- 20015	57871- 57376	Fehér et al. (2016)
	13051/2012					
	ESV	JQ724856	Spain	21453- 20015	57866- 57371	Mavian et al. (2012b)
CMT	ADRV-1201	KC865735	China	20869- 19432	50979- 50484	Chen et al. (2013)
	ADRV-2010SX	KF033124	China	20946- 19509	50997- 50502	Wang et al. (2014)
	CMTV-ES	JQ231222	Spain	20809- 19372	52323- 51828	Mavian et al. (2012a)
	CMTV-NL	KP056312	Netherlands	21012- 19575	52892- 52397	van Beurden et al. (2014)

ENAR	CMTV-Pe	MF125270	Netherlands	20909- 19472	52030- 51535	Saucedo et al. (2018)
	CMTV-Lv	MF102029	Netherlands	20994- 19557	52981- 52486	Saucedo et al. (2018)
	CMTV-Pf	MF062693	Netherlands	21012- 19575	53066- 52571	Saucedo et al. (2018)
	CMTV-Pr	MF004271	Netherlands	21012- 19575	52897- 52402	Saucedo et al. (2018)
	ToRV-1	KP266743	Germany	20397- 18960	51141- 50646	Stöhr et al. (2015)
	PPIV	KX574341	Finland	20108- 18671	51683- 51188	Holopainen et al. (2016)
	THRV-CH8/96	KP266741	Switzerland	21084- 19647	51439- 50944	Stöhr et al. (2015)
	LMRV-F24-15	MH665358	Iceland	19612- 18175	54255- 53760	Stagg et al. (2017)
	LMRV-V4955	MH665360	UK	19612- 18175	54147- 53652	Stagg et al. (2017)
	LMRV-F140-16	MH665359	Ireland	19555- 18118	53894- 53399	Stagg et al. (2017)
	Rmax	KX574343	Denmark	19390- 17953	54212- 53717	Ariel et al. (2016)
	CoIV	KX574342	Denmark	19568- 18131	54443- 53948	Ariel et al. (2016)

SERV	SERV	KX353311	New Zealand	20765-19238	59145-58650	Subramaniam et al. (2016)
LCDV	LCDV	NC_033423	Spain	66442-65000	160255-159695	López-Bueno et al. (2016)

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