

Figure S1. Phylogeny of exogenous and endogenous circovirus Rep sequences.

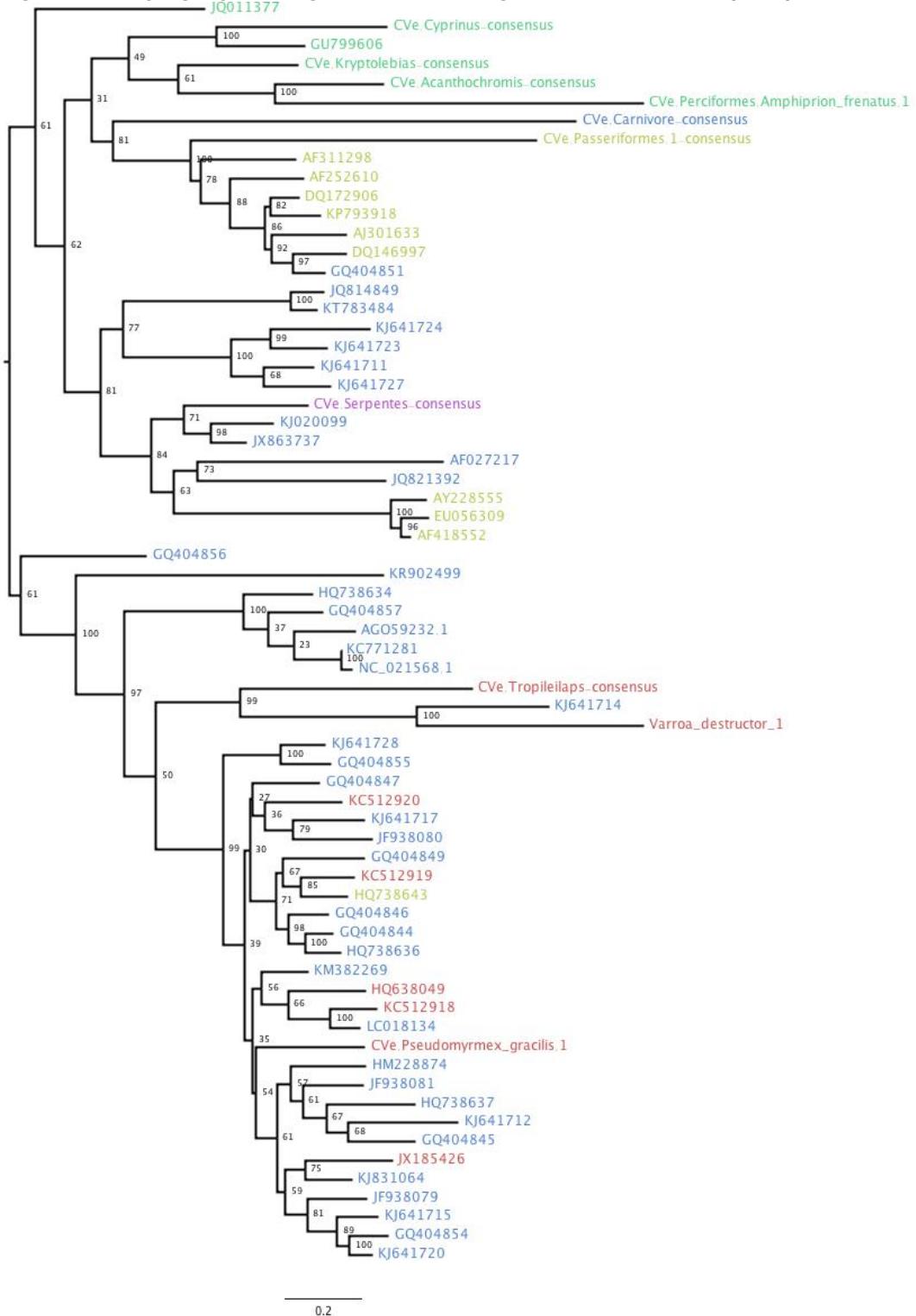


Figure S1. Maximum-likelihood phylogeny reconstructed from an alignment of replication-associated protein (Rep) sequences. The tree is mid-point rooted, asterisks indicate nodes with >70% bootstrap support. Scale bar indicates evolutionary distance in substitutions per site. Sequences derived from metagenomic samples are indicated by colored circles. Taxa names are shown as accession numbers for sequences derived from viruses and metagenomic samples, and element IDs for CVe.

Table S1. Circovirus and Cyclovirus reference sequences

Accession #	Virus name	Citation*
Circovirus		
NC_001944	Beak and feather disease virus	(1)
NC_002361	Columbid circovirus	(2)
NC_003410	Canary circovirus	(3)
NC_008033	Starling circovirus (StCV)	(4)
NC_008375	Raven circovirus	(5)
NC_008521	Gull circovirus	(6)
NC_008522	Finch circovirus	(6)
NC_026945	Zebra finch circovirus	(7)
NC_007220	Duck circovirus	(8)
NC_025247	Swan circovirus	(9)
NC_015399	Barbel circovirus	(10)
NC_025246	Wels catfish circovirus	(11)
NC_001792	Porcine circovirus 1	(12)
NC_005148	Porcine circovirus 2	(12)
NC_020904	Canine circovirus 1	(13)
NC_023885	Mink circovirus	(14)
NC_028045	Mexican free-tailed bat circovirus	(15)
NC_031753	Porcine circovirus 3	(16)
GQ404851	Chimpanzee stool avian-like circovirus Chimp17	(17)
JQ814849	Bat associated circovirus 3	(18)
KJ641711	Bat associated circovirus 8	(19)
KT783484	Bat associated circovirus 4	(20)
KJ641724	Bat associated circovirus 6	(19)
KJ641711	Bat associated circovirus 8	(19)
KJ641723	Bat associated circovirus 7	(19)
Cyclovirus		
KR902499	Cyclovirus Equ1	(30)
HQ738634	Cyclovirus PKbeef23	(21)
GQ404857	Cyclovirus TN25	(17)
KF031471	Cyclovirus VN isolate cs1	(22)
NC_021568	Human cyclovirus VS5700009	(23)
KJ641714	Bat circovirus isolate BtRp-CV-14/GD2012	(18)
KJ641728	Bat associated cyclovirus 13 isolate BtPa-CV-2/NX2013	(18)
GQ404855	Cyclovirus NG14	(17)
GQ404847	Cyclovirus PK5510	(17)
KC512920	Dragonfly cyclovirus 8	(24)
KJ641717	Bat associated cyclovirus 11 isolate BtMspp.-CV/GD2012	(18)
JF938080	Bat circovirus ZS/China/2011 isolate YN-BtCV-3	(25)
GQ404849	Cyclovirus Chimp11	(17)
KC512919	Dragonfly cyclovirus 7	(24)
HQ738643	CyCV-NG-chicken-8	(21)
GQ404846	Cyclovirus PK5222	(17)
GQ404844	Cyclovirus PK5006	(17)
HQ738636	Cyclovirus PKgoat11	(21)
KM382269	Bat circovirus POA/2012/II	(20)
HQ638049	Dragonfly cyclovirus isolate DfCyV-A9	(26)
KC512918	Dragonfly cyclovirus 6	(24)
LC018134	Cyclovirus TsCyV-1_JP-NUBS-2014	(27)
HM228874	Bat cyclovirus GF-4c	(28)
JF938081	Bat associated cyclovirus 3 isolate YN-BtCV-4	(25)
HQ738637	Cyclovirus bat/USA/2009	(21)
KJ641712	Bat associated cyclovirus 6	(18)
GQ404845	Cyclovirus PK5034	(17)
JX185426	Dragonfly cyclovirus 5	(29)
KJ831064	Cyclovirus SL-108277	(18)
JF938079	Bat associated cyclovirus 2 isolate YN-BtCV-2	(25)
KJ641715	Bat associated cyclovirus 8 isolate BtRp-CV-52/GD2012	(18)
GQ404854	Cyclovirus NG12	(17)
KJ641720	Bat associated cyclovirus 9 isolate BtTp-CV-2/GX2012	(18)
Unclassified		
GQ404856	Human stool-associated circular virus NG13	(17)

Footnote: *First report, or review describing history of discovery.

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