This form should be used for all taxonomic proposals. Please complete all those modules that are applicable.
For guidance, see the notes written in blue and the separate document "Help with completing a taxonomic proposal"

Please try to keep related proposals within a single document.

Part 1: **TITLE, AUTHORS, etc**

Code assigned:	***2017.013D***	(to be completed by ICTV officers)
Short title: creation of new order, *Ortervirales*, for 5 families of reverse-transcribing viruses		
Modules attached (Modules 1, 4 and either 2 or 3 are required.)	**1** ☒ **2** ☒ **3** ☐ **4** ☒	

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List the ICTV study group(s) that have seen this proposal:

A list of study groups and contacts is provided at http://www.ictvonline.org/subcommittees.asp . If in doubt, contact the appropriate subcommittee chair (there are six virus subcommittees: animal DNA and retroviruses, animal ssRNA-, animal ssRNA+, fungal and protist, plant, bacterial and archaeal)	ICTV Retroviridae and Caulimoviridae Study Groups as well as Chairs of the Plant Viruses Subcommittee, Animal DNA Viruses and Retroviruses Subcommittee, as well as Fungal and Protist Viruses Subcommittee

ICTV Study Group comments (if any) and response of the proposer:

Date first submitted to ICTV:	June 8, 2017
Date of this revision (if different to above):	June 22, 2017

ICTV-EC comments and response of the proposer:

Part 2: **PROPOSED TAXONOMY**

Present the proposed new taxonomy on accompanying spreadsheet

Name of accompanying spreadsheet: 2017.013D.N.v1.Ortervirales

Please display the taxonomic changes you are proposing on the accompanying spreadsheet module 2017_TP_Template_Excel_module. Submit both this and the spreadsheet to the appropriate ICTV Subcommittee Chair.

Part 4: APPENDIX: supporting material

Reverse-transcribing viruses are currently classified into five families: *Caulimoviridae*, *Hepadnaviridae*, *Metaviridae*, *Pseudoviridae*, and *Retroviridae* (https://talk.ictvonline.org/taxonomy/). In addition, a taxonomic relocation of the genus *Semotivirus* from the family *Metaviridae* to a new family "Belpaoviridae" has been proposed in 2017 (submitted TaxoProp 2017.001D.N.v1.Belpaoviridae). The only protein shared by viruses from all these families is the reverse-transcriptase (RT) including an RNase H (RH) domain (Table 1). Phylogenetic analyses support the monophyly of these viral RTs (Xiong and Eickbush, 1990; Gladyshev and Arkhipova, 2011), to the exclusion of those encoded by non-viral retroelements from both eukaryotes and prokaryotes (Figure 1). However, besides RTs, members of the families "Belpaoviridae", *Caulimoviridae*, *Metaviridae*, *Pseudoviridae*, and *Retroviridae* share several conserved features that hepadnaviruses lack (Table 1).

Table 1. Features shared by reverse-transcribing viruses.

		Retroviruses	Metaviruses	Pseudoviruses	Belpaoviruses	Caulimoviruses	Hepadnaviruses
Pol	RT-RH	+	+	+	+	+	+
	Protease	+	+	+	+	+	-
	Integrase	+	+	+	+	-	-
Gag	CA/CP	+	+	+	+	+	-
	NC	+*	+	+	+	+	-
LTR		+	+	+	+	-	-
Priming		tRNA	tRNA	tRNA	tRNA	tRNA	TP

* – members of the subfamily *Spumaretrovirinae* do not contain the canonical NC domain within their Gag polyproteins. Abbreviations: RT, reverse transcriptase; RH, RNase H; CA/CP, capsid protein; NC, nucleocapsid protein; LTR, long terminal repeats; Gag, group-specific antigen; Pol, polymerase polyprotein; TP, terminal protein.

In particular, the Pol polyproteins of belpaoviruses, caulimoviruses, metaviruses, pseudoviruses, and retroviruses possess similar domain architectures. These Pol polyproteins encode an aspartate protease, which is responsible for the processing of viral polyproteins. Furthermore, belpaoviruses, metaviruses, pseudoviruses, and retroviruses integrate into host-cell chromosomes as part of their life cycles, share long terminal repeats (LTR), and encode homologous integrases of the DDE recombinase superfamily, which are expressed as part of the corresponding Pol polyproteins. Although members of the *Caulimoviridae* lack an integrase, in RT-based phylogenies, they consistently form a sister clade to metaviruses, suggesting that the integrase has been lost in the caulimovirus branch (Figures 1 and 2). In agreement with this hypothesis, petunia vein clearing virus (genus *Petuvirus*, family *Caulimoviridae*), which in RT-based phylogenies occupies a basal position within the *Caulimoviridae* clade, contains sequence motifs resembling those of retroviral integrases (Richert-Pöggeler and Shepherd, 1997), although no evidence for integrase activity of the corresponding protein domain has been presented. We note that the basal branches of the RT tree are not resolved and are presented as a multifurcation in Figure 2. This topology is at least compatible with the *Hepadnaviridae* clade being outside of the viral group including belpaoviruses, caulimoviruses, metaviruses, pseudoviruses, and retroviruses.

Belpaoviruses, caulimoviruses, metaviruses, pseudoviruses, and retroviruses share not only homologous proteins involved in genome replication and polyprotein processing, but also the two principal protein components of the viral particles, namely the capsid and nucleocapsid proteins/domains (Figure 3, Table 1) (Vo et al., 2016; Krupovic and Koonin, 2017). By contrast, hepadnaviruses encode an unrelated capsid protein (Steven et al., 2005). These findings indicate that belpaoviruses, caulimoviruses, metaviruses, pseudoviruses, and retroviruses have evolved from a common viral ancestor, rather than from distinct capsid-less retrotransposons (Krupovic and Koonin, 2017).

Finally, similarities between belpaoviruses, caulimoviruses, metaviruses, pseudoviruses, and retroviruses extend to the mechanism of replication priming. All these viruses utilize host tRNA molecules as primers for genome replication by reverse transcription (Menéndez-Arias et al., 2017), whereas hepadnaviruses use a specific protein priming mechanism mediated by the terminal protein (TP) domain of the viral RT (Nassal, 2008).

The common complement of proteins required for genome replication, polyprotein processing, and virion formation, the topology of the phylogenetic tree of the RTs, as well as mechanistic similarities in genome replication, strongly suggest that belpaoviruses, caulimoviruses, metaviruses, pseudoviruses, and retroviruses share a common evolutionary origin. By contrast, hepadnaviruses that typically branch out at the base of the viral RT clade (Figures 1 and 2) appear to be more distantly related. Thus, we propose to include the families *Caulimoviridae*, *Metaviridae*, *Pseudoviridae*, *Retroviridae* and the putative family "Belpaoviridae", into an order to be named *Ortervirales* (*orter*: an inversion of *retro*, which stands for reverse transcription; *virales*: suffix for an order).

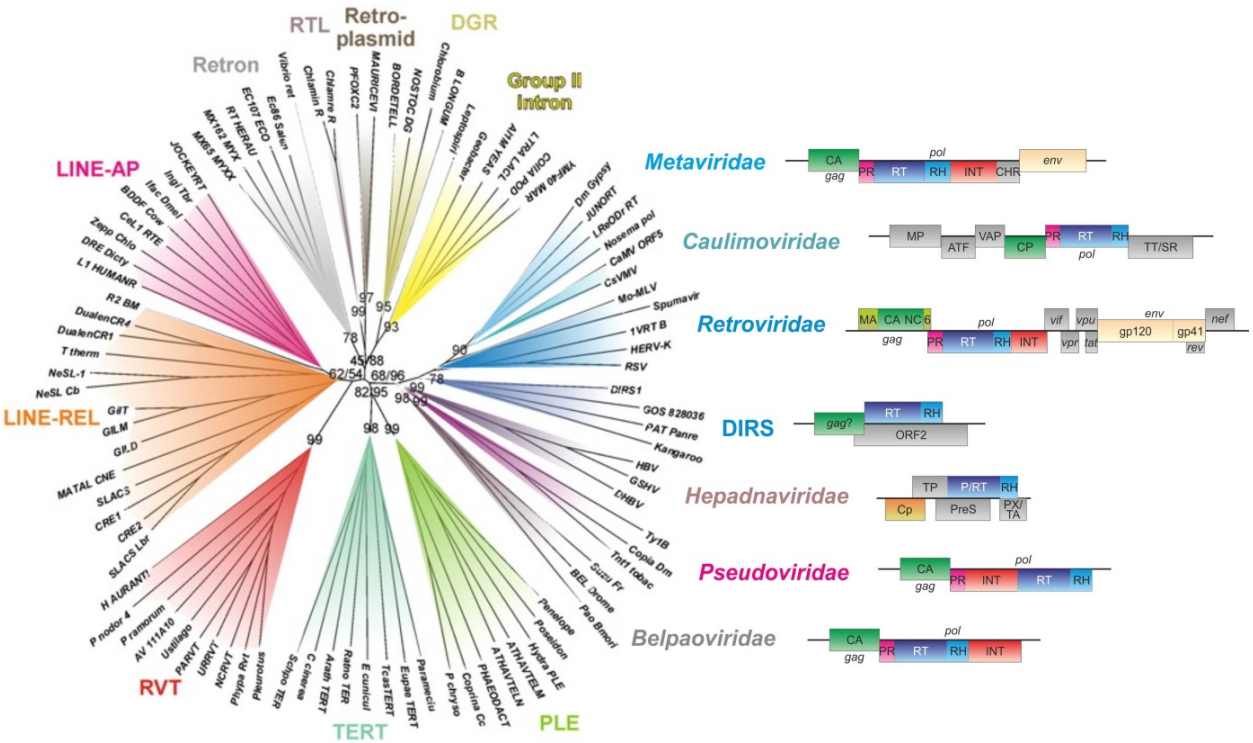

Figure 1. Genomic organizations of selected representatives of reverse-transcribing viruses overlay the phylogenetic tree of reverse transcriptases (RTs). A phylogram indicating both minimum evolution (ME) and maximum-likelihood (ML) support values for the most basal branches and ME support for each colored clade in cases where it exceeds 70%. The tree is reproduced from (Gladyshev and Arkhipova, 2011). Abbreviations: DGR, diversity-generating retroelements; LINE, long interspersed nucleotide elements; *gag*, group-specific antigen gene; *env*, envelope gene; *pol*, polymerase gene; PR, aspartate protease; RT, reverse transcriptase; RH, RNase H; INT, integrase; CHR, chromodomain. The sites of Pol processing by PR are shown as vertical dashed lines. MA, matrix protein; CA/Cp, capsid protein; NC, nucleocapsid; 6, 6-kDa protein; *vif*, *vpr*, *vpu*, *tat*, *rev*, and *nef*, genes that express regulatory proteins via spliced mRNAs; gp120 and gp41, 120- (surface) and 41-kDa (transmembrane) glycoproteins; ATF, aphid transmission factor; VAP, virion-associated protein; TT/SR, translation trans-activator/suppressor of RNA interference; TP, terminal protein; P, polymerase; PreS, pre-surface protein (envelope); PX/TA, protein X/transcription activator; RVT, RT-related cellular genes; TERT, telomerase reverse transcriptase; PLE, Penelope-like retroelements.

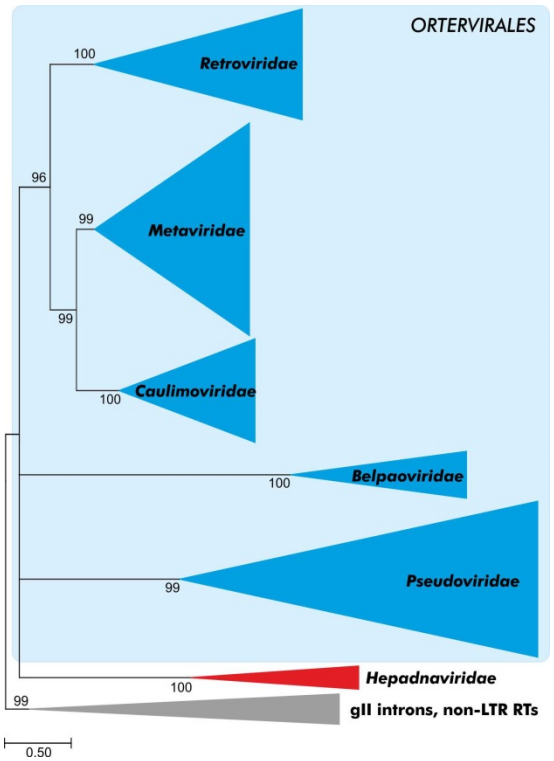

Figure 2. Maximum likelihood phylogeny of viral RTs. The tree includes sequences of 290 taxa representing all ICTV-recognized genera of RT viruses. The phylogeny was inferred using PhyML (Guindon et al., 2010) with the LG+G+F substitution model and is rooted with sequences from non-viral retroelements (bacterial group II introns and eukaryotic LINE retroelements).

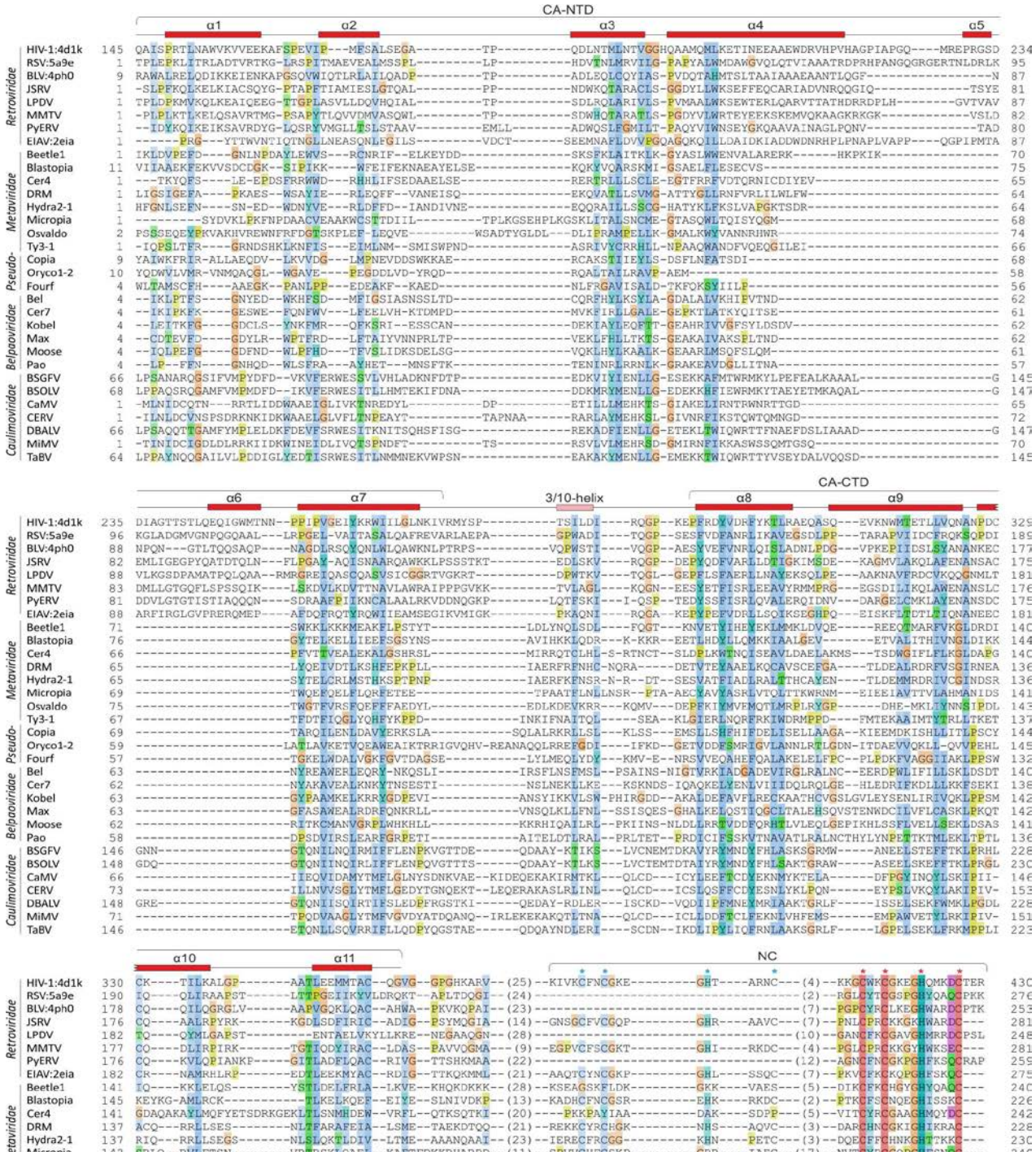

Figure 3. Multiple-sequence alignment of CAs/CPs of reverse-transcribing viruses belonging to the families "Belpaoviridae", *Caulimoviridae*, *Metaviridae*, *Pseudoviridae*, and *Retroviridae*. The figure is modified from Krupovic and Koonin (2017). Secondary-structure elements above the alignment are indicated for Rous sarcoma virus CA (PDB accession number 5A9E). Red and blue asterisks indicate the conserved residues in the single or tandem Zn-knuckle motifs of the nucleocapsid (NC) domain. CP

sequences are conserved throughout the *Caulimoviridae* family; however, for convenient representation, only CP sequences from viruses classified into genera *Caulimovirus* and *Badnavirus* are shown in Figure 3. Abbreviations: HIV-1, human immunodeficiency virus 1; BLV, bovine leukemia virus; JSRV, Jaagsiekte sheep retrovirus; LPDV, lymphoproliferative disease virus; MMTV, mouse mammary tumor virus; MPMV, Mason-Pfizer monkey virus; PyERV, Python molurus endogenous retrovirus; EIAV, equine infectious anemia virus; DRM, Danio rerio Mag element; BSGFV, banana streak Goldfinger virus; BSOLV, banana streak OL (badna)virus; CaMV, cauliflower mosaic virus; CERV, carnation etched ring virus; CSSV, cacao swollen shoot virus; DBALV, Dioscorea bacilliform AL virus; MiMV, Mirabilis mosaic virus; TaBV, taro bacilliform virus.

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code assigned	2017.013D

INSTRUCTIONS: Present the taxonomic changes you are proposing in the form of a comparison of old and new taxonomic orders. **Before starting, please familiarize yourself with the instructions and examples in Helpnotes.**
1. Proposed taxonomy: enter the proposed taxonomy by completing columns I to S, listing taxa as they will appear in the ICTV Master Species List (https://talk.ictvonline.org/files/master-species-lists/m). List newly created taxa in **red**.
2. Existing taxonomy: Now enter the corresponding taxa, as they exist now, in columns A to G.
Insert a new row to accommodate any existing taxon that is to be abolished or removed for reassignment elsewhere; e.g. to move a species from one genus to another.
3. The changes: Finally, in column S state in words the taxonomic change(s) that are implied by the comparison of old and new taxonomies on that row of the spreadsheet.

CURRENT TAXONOMY							PROPOSED TAXONOMY												
Order	Family	Subfamily	Genus	Species	Type Sp?	Exemplar Accession Number	Order	Family	Subfamily	Genus	Species	Type Sp?	Exemplar Accession Number	Exemplar virus name	Exemplar isolate i.d.	complete genome? (CG, CCG or PG)	Abbrev[n] if any	Proposed change (e.g. new species; species renamed and reassigned)
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Anopheles gambiae Moose v*	0	AF060859	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Anopheles gambiae Moose viru*	0	AF060859	Anopheles gambiae Moose virus		CG	AgaMooV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Ascaris lumbricoides Tas virus*	1	Z29712	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Ascaris lumbricoides Tas virus*	1	Z29712	Ascaris lumbricoides Tas virus		CG	AluTasV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Bombyx mori Pao virus*	0	L09635	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Bombyx mori Pao virus*	0	L09635	Bombyx mori Pao virus		CG	BmoPaoV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Caenorhabditis elegans Cer1:*	0	Z81510	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Caenorhabditis elegans Cer13 v*	0	Z81510	Caenorhabditis elegans Cer13 virus		CG	CelCer13V	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila melanogaster Bel*	0	U23420	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila melanogaster Bel vi*	0	U23420	Drosophila melanogaster Bel virus		CG	DmeBelV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila melanogaster Roo*	0	AY180917	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila melanogaster Roo vi*	0	AY180917	Drosophila melanogaster Roo virus		CG	DmeRooV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila simulans Ninja vir*	0	D83207	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila simulans Ninja virus*	0	D83207	Drosophila simulans Ninja virus		CG	DsiNinV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Takifugu rubripes Suzu virus*	0	AF537216	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Takifugu rubripes Suzu virus*	0	AF537216	Fugu rubripes Suzu virus		CG	FruSuzV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila semotivirus Max*	0	AJ487856	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Drosophila semotivirus Max*	0	AJ487856	Drosophila melanogaster Max virus		CG	DmeMaxV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Antheraea semotivirus Tamy*	0	AF530470	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Antheraea semotivirus Tamy*	0	AF530470	Antheraea mylitta Tamy virus		CG	TamyV	species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Belpaoviridae*	unassigned	*Semotivirus*	*Schistosoma semotivirus Sinb*	0	AY506538	*Ortervirales*	*Belpaoviridae*	unassigned	*Semotivirus*	*Schistosoma semotivirus Sinbad*	0	AY506538	Schistosoma mansoni Sinbad virus		CG		species, genus and new family (proposed in 2017.001D) assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Aglaonema bacilliform virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Aglaonema bacilliform virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak GF virus*	0	AY493509	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak GF virus*	0	AY493509	Goldfinger				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak IM virus*	0	HQ593112	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak IM virus*	0	HQ593112	Kenya				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak MY virus*	0	AY805074	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak MY virus*	0	AY805074	Australia				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak OL virus*	0	AJ002234	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak OL virus*	0	AJ002234	Nigeria				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UA virus*	0	HQ593107	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UA virus*	0	HQ593107	Kenya				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UI virus*	0	HQ593108	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UI virus*	0	HQ593108	Uganda				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UL virus*	0	HQ593109	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UL virus*	0	HQ593109	Uganda				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UM virus*	0	HQ593110	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak UM virus*	0	HQ593110	Uganda				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak VN virus*	0	AY750155	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Banana streak VN virus*	0	AY750155	Acuminata Vietnam				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Bougainvillea chlorotic vein b*	0	EU034539	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Bougainvillea chlorotic vein ban*	0	EU034539	Taiwan				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Cacao swollen shoot CD virus*	0	JN606110	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Cacao swollen shoot CD virus*	0	JN606110	CSSV-CI152				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Cacao swollen shoot Togo A v*	0	AJ781003	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Cacao swollen shoot Togo A viru*	0	AJ781003	CSSV-Wobe12				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Cacao swollen shoot virus*	0	L14546	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Cacao swollen shoot virus*	0	L14546	Hagen				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Canna yellow mottle virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Canna yellow mottle virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Citrus yellow mosaic virus*	0	AF347695	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Citrus yellow mosaic virus*	0	AF347695	Huang				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Commelina yellow mottle viru*	1	X52938	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Commelina yellow mottle virus*	1	X52938	Olszewski				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Dioscorea bacilliform AL virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Dioscorea bacilliform AL virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Dioscorea bacilliform SN viru*	0	DQ822073	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Dioscorea bacilliform SN virus*	0	DQ822073	Benin				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Fig badnavirus 1*	0	JF411989	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Fig badnavirus 1*	0	JF411989	Arkansas 1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Gooseberry vein banding assi*	0	JQ316114	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Gooseberry vein banding associ*	0	JQ316114	RC HC				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Grapevine Roditis leaf discolo*	0	HG940503	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Grapevine Roditis leaf discolora*	0	HG940503	GRLDaV-w4				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Grapevine vein clearing virus*	0	JF301669	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Grapevine vein clearing virus*	0	JF301669	LBC0903				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Kalanchoë top-spotting virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Kalanchoë top-spotting virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Mulberry badnavirus 1*	0	LN651258	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Mulberry badnavirus 1*	0	LN651258	Mulberry badnavirus 1, Lebanon34				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Pagoda yellow mosaic associ*	0	KJ013302	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Pagoda yellow mosaic associate*	0	KJ013302	pymav-01				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Pineapple bacilliform CO viru*	0	GU121676	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Pineapple bacilliform CO virus*	0	GU121676	China				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Pineapple bacilliform ER virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Pineapple bacilliform ER virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Piper yellow mottle virus*	0	KC808712	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Piper yellow mottle virus*	0	KC808712	ISH-1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Rubus yellow net virus*	0	KM078034	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Rubus yellow net virus*	0	KM078034	Baumforth's Seedling A				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Schefflera ringspot virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Schefflera ringspot virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Spiraea yellow leafspot virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Spiraea yellow leafspot virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform Guadel*	0	FJ824813	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform Guadelou*	0	FJ824813	SCBV-R570				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform Guadel*	0	FJ439817	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform Guadelou*	0	FJ439817	SCBV-Ba3				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform IM viru*	0	AJ277091	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform IM virus*	0	AJ277091	Ireng Maleng				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform MO vir*	0	M89923	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Sugarcane bacilliform MO virus*	0	M89923	Morocco				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Sweet potato pakakuy virus*	0	FJ560943	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Sweet potato pakakuy virus*	0	FJ560943	Huachano1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Taro bacilliform CH virus*	0	KP710178	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Taro bacilliform CH virus*	0	KP710178	Taro bacilliform CH virus, isolate TaBCHV-1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Taro bacilliform virus*	0	AF357836	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Taro bacilliform virus*	0	AF357836	Papua New Guinea				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Badnavirus*	*Yacon necrotic mottle virus*	0	KM229702	*Ortervirales*	*Caulimoviridae*	unassigned	*Badnavirus*	*Yacon necrotic mottle virus*	0	KM229702	Yacon necrotic mottle virus, isolate YV1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Atractylodes mild mottle viru*	0	KR080327	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Atractylodes mild mottle virus*	0	KR080327	AMMV-ES				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Carnation etched ring virus*	0	X04658	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Carnation etched ring virus*	0	X04658	Hull				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Cauliflower mosaic virus*	1	V00141	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Cauliflower mosaic virus*	1	V00141	Franck				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Dahlia mosaic virus*	0	JX272320	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Dahlia mosaic virus*	0	JX272320	Portland				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Figwort mosaic virus*	0	X06166	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Figwort mosaic virus*	0	X06166	clone pFMV Sc3				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Horseradish latent virus*	0	JX429923	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Horseradish latent virus*	0	JX429923	ID1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Lamium leaf distortion virus*	0	EU554423	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Lamium leaf distortion virus*	0	EU554423	USA				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Mirabilis mosaic virus*	0	AF454635	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Mirabilis mosaic virus*	0	AF454635	Dey				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Soybean Putnam virus*	0	JQ926983	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Soybean Putnam virus*	0	JQ926983	USA				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Strawberry vein banding viru:*	0	X97304	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Strawberry vein banding virus*	0	X97304	clone pSVBV-E3				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Caulimovirus*	*Thistle mottle virus*	0	0	*Ortervirales*	*Caulimoviridae*	unassigned	*Caulimovirus*	*Thistle mottle virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Cavemovirus*	*Cassava vein mosaic virus*	1	U59751	*Ortervirales*	*Caulimoviridae*	unassigned	*Cavemovirus*	*Cassava vein mosaic virus*	1	U59751	de Kochko				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Cavemovirus*	*Sweet potato collusive virus*	0	HQ694978	*Ortervirales*	*Caulimoviridae*	unassigned	*Cavemovirus*	*Sweet potato collusive virus*	0	HQ694978	Mad1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Petuvirus*	*Petunia vein clearing virus*	1	U95208	*Ortervirales*	*Caulimoviridae*	unassigned	*Petuvirus*	*Petunia vein clearing virus*	1	U95208	Richert-Poggeler				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Rosadnavirus*	*Rose yellow vein virus*	1	JX028536	*Ortervirales*	*Caulimoviridae*	unassigned	*Rosadnavirus*	*Rose yellow vein virus*	1	JX028536	RYVV-MN1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Solendovirus*	*Sweet potato vein clearing vi*	0	HQ694979	*Ortervirales*	*Caulimoviridae*	unassigned	*Solendovirus*	*Sweet potato vein clearing virus*	0	HQ694979	Dom1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Solendovirus*	*Tobacco vein clearing virus*	1	AF190123	*Ortervirales*	*Caulimoviridae*	unassigned	*Solendovirus*	*Tobacco vein clearing virus*	1	AF190123	Lockhart				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Soymovirus*	*Blueberry red ringspot virus*	0	AF404509	*Ortervirales*	*Caulimoviridae*	unassigned	*Soymovirus*	*Blueberry red ringspot virus*	0	AF404509	Glasheen				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Soymovirus*	*Cestrum yellow leaf curling vi*	0	AF364175	*Ortervirales*	*Caulimoviridae*	unassigned	*Soymovirus*	*Cestrum yellow leaf curling viru:*	0	AF364175	Stavolone				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Soymovirus*	*Peanut chlorotic streak virus*	0	U13988	*Ortervirales*	*Caulimoviridae*	unassigned	*Soymovirus*	*Peanut chlorotic streak virus*	0	U13988	K1				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Soymovirus*	*Soybean chlorotic mottle virus*	1	X15828	*Ortervirales*	*Caulimoviridae*	unassigned	*Soymovirus*	*Soybean chlorotic mottle virus*	1	X15828	Hibi				species, genus and family assigned to new order
unassigned	*Caulimoviridae*	unassigned	*Tungrovirus*	*Rice tungro bacilliform virus*	1	X57924	*Ortervirales*	*Caulimoviridae*	unassigned	*Tungrovirus*	*Rice tungro bacilliform virus*	1	X57924	Philippines				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Ceratitis capitata Yoyo virus*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Ceratitis capitata Yoyo virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila ananassae Tom vi*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila ananassae Tom viru:*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster 17.*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster 17.6 v*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster 297*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster 297 vi*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Gy*	1	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Gypsy*	1	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Ide*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Idefix*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Tir*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Tirant*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Zan*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila melanogaster Zam v*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila virilis Tv1 virus*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Drosophila virilis Tv1 virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Errantivirus*	*Trichoplusia ni TED virus*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Errantivirus*	*Trichoplusia ni TED virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Arabidopsis thaliana Athila vi*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Arabidopsis thaliana Athila virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Arabidopsis thaliana Tat4 viru*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Arabidopsis thaliana Tat4 virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Bombyx mori Mag virus*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Bombyx mori Mag virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Caenorhabditis elegans Cer1*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Caenorhabditis elegans Cer1 vir*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Cladosporium fulvum T-1 viru*	0	Z11866	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Cladosporium fulvum T-1 virus*	0	Z11866	McHale				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Dictyostelium discoideum Ski*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Dictyostelium discoideum Skipp*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Drosophila buzzatii Osvaldo v*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Drosophila buzzatii Osvaldo viru*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster 412*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster 412 vi*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Bla*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Blasto*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Md*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Mdg1*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Md*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Mdg3*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Mic*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Drosophila melanogaster Micro*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Drosophila virilis Ulysses viru*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Drosophila virilis Ulysses virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Fusarium oxysporum Skippy v*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Fusarium oxysporum Skippy viru*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Lilium henryi Del1 virus*	0	X13886	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Lilium henryi Del1 virus*	0	X13886	Smyth				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Saccharomyces cerevisiae Tv.*	1	M34549	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Saccharomyces cerevisiae Ty3 v*	1	M34549	AB950				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Schizosaccharomyces pombe*	0	M38526	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Schizosaccharomyces pombe Tf*	0	M38526	Levin				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Schizosaccharomyces pombe*	0	L10324	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Schizosaccharomyces pombe Tf.*	0	L10324	Weaver				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Takifugu rubripes Sushi virus*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Takifugu rubripes Sushi virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Tribolium castaneum Woot v*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Tribolium castaneum Woot viru:*	0	0	0				species, genus and family assigned to new order
unassigned	*Metaviridae*	unassigned	*Metavirus*	*Tripneustis gratilla SURL viru:*	0	0	*Ortervirales*	*Metaviridae*	unassigned	*Metavirus*	*Tripneustis gratilla SURL virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Aedes aegypti Mosqcopia viru*	0	0	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Aedes aegypti Mosqcopia virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Candida albicans Tca2 virus*	0	AF050215	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Candida albicans Tca2 virus*	0	AF050215	hOG759				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Candida albicans Tca5 virus*	0	AF065434	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Candida albicans Tca5 virus*	0	AF065434	SC5314				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Drosophila melanogaster 173*	0	0	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Drosophila melanogaster 1731*	0	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Drosophila melanogaster cop*	1	0	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Drosophila melanogaster copia*	1	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Saccharomyces cerevisiae Tv*	0	U19263	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Saccharomyces cerevisiae Ty5 v*	0	U19263	Zou				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Volvox carteri Lueckenbuesse*	0	U90320	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Volvox carteri Lueckenbuesser v*	0	U90320	UTEX 1885 (HK10)				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Hemivirus*	*Volvox carteri Osser virus*	0	X69552	*Ortervirales*	*Pseudoviridae*	unassigned	*Hemivirus*	*Volvox carteri Osser virus*	0	X69552	Lindauer				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana Art1 viru*	0	Y08010	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana Art1 virus*	0	Y08010	Herve				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana AtRE1 vi*	0	AB021265	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana AtRE1 viru:*	0	AB021265	Kuwahara				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana evelknie*	0	AF039373	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana evelknieve*	0	AF039373	Henikoff				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana Ta1 viru*	0	X13291	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Arabidopsis thaliana Ta1 virus*	0	X13291	Voytas				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Brassica oleracea Melmoth v*	0	Y12321	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Brassica oleracea Melmoth viru*	0	Y12321	Pastuglia				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Cajanus cajan Panzee virus*	0	0	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Cajanus cajan Panzee virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Glycine max Tgmr virus*	0	U96748	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Glycine max Tgmr virus*	0	U96748	Bhattacharyya				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Hordeum vulgare BARE-1 viru*	0	Z17327	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Hordeum vulgare BARE-1 virus*	0	Z17327	NK 1558				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Nicotiana tabacum Tnt1 virus*	0	X13777	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Nicotiana tabacum Tnt1 virus*	0	X13777	Rouze				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Nicotiana tabacum Tto1 virus*	0	D83003	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Nicotiana tabacum Tto1 virus*	0	D83003	Hirochika				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Oryza australiensis RIRE1 vir*	0	D85597	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Oryza australiensis RIRE1 virus*	0	D85597	Ohtsubo				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Oryza longistaminata Retrofi*	0	U72726	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Oryza longistaminata Retrofit v*	0	U72726	IRBB21				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Physarum polycephalum Tp1*	0	0	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Physarum polycephalum Tp1 vir*	0	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Saccharomyces cerevisiae Tv.*	1	M18706	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Saccharomyces cerevisiae Ty1 v*	1	M18706	Boeke				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Saccharomyces cerevisiae Tv.*	0	X03840	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Saccharomyces cerevisiae Ty2 v*	0	X03840	Warmington				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Saccharomyces cerevisiae Tv*	0	M94164	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Saccharomyces cerevisiae Ty4 v*	0	M94164	C836				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Solanum tuberosum Tst1 viru*	0	X52387	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Solanum tuberosum Tst1 virus*	0	X52387	Brisson				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Triticum aestivum WIS-2 viru*	0	0	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Triticum aestivum WIS-2 virus*	0	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Zea mays Hopscotch virus*	0	U12626	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Zea mays Hopscotch virus*	0	U12626	White				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Pseudovirus*	*Zea mays Sto-4 virus*	0	AF082133	*Ortervirales*	*Pseudoviridae*	unassigned	*Pseudovirus*	*Zea mays Sto-4 virus*	0	AF082133	Marillonnet				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Sirevirus*	*Arabidopsis thaliana Endovir*	0	AY016208	*Ortervirales*	*Pseudoviridae*	unassigned	*Sirevirus*	*Arabidopsis thaliana Endovir vir*	0	AY016208	Peterson-Burch				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Sirevirus*	*Glycine max SIRE1 virus*	1	0	*Ortervirales*	*Pseudoviridae*	unassigned	*Sirevirus*	*Glycine max SIRE1 virus*	1	0	0				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Sirevirus*	*Lycopersicon esculentum ToR*	0	U68072	*Ortervirales*	*Pseudoviridae*	unassigned	*Sirevirus*	*Lycopersicon esculentum ToRTL*	0	U68072	Daraselia				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Sirevirus*	*Zea mays Opie-2 virus*	0	U68408	*Ortervirales*	*Pseudoviridae*	unassigned	*Sirevirus*	*Zea mays Opie-2 virus*	0	U68408	SanMiguel				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Sirevirus*	*Zea mays Prem-2 virus*	0	U41000	*Ortervirales*	*Pseudoviridae*	unassigned	*Sirevirus*	*Zea mays Prem-2 virus*	0	U41000	Turcich				species, genus and family assigned to new order
unassigned	*Pseudoviridae*	unassigned	*Unassigned*	*Phaseolus vulgaris Tpv2-6 vir*	0	AJ005762	*Ortervirales*	*Pseudoviridae*	unassigned	unassigned	*Phaseolus vulgaris Tpv2-6 virus*	0	AJ005762	Bachmair				species, genus and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Avian carcinoma Mill Hill viru*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Avian carcinoma Mill Hill virus 2*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Avian leukosis virus*	1	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Avian leukosis virus*	1	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Avian myeloblastosis virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Avian myeloblastosis virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Avian myelocytomatosis virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Avian myelocytomatosis virus 2*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Avian sarcoma virus CT10*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Avian sarcoma virus CT10*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Fujinami sarcoma virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Fujinami sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Rous sarcoma virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Rous sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*UR2 sarcoma virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*UR2 sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Alpharetrovirus*	*Y73 sarcoma virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Alpharetrovirus*	*Y73 sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Betaretrovirus*	*Jaagsiekte sheep retrovirus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Betaretrovirus*	*Jaagsiekte sheep retrovirus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Betaretrovirus*	*Langur virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Betaretrovirus*	*Langur virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Betaretrovirus*	*Mason-Pfizer monkey virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Betaretrovirus*	*Mason-Pfizer monkey virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Betaretrovirus*	*Mouse mammary tumor virus*	1	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Betaretrovirus*	*Mouse mammary tumor virus*	1	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Betaretrovirus*	*Squirrel monkey retrovirus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Betaretrovirus*	*Squirrel monkey retrovirus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Deltaretrovirus*	*Bovine leukemia virus*	1	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Deltaretrovirus*	*Bovine leukemia virus*	1	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Deltaretrovirus*	*Primate T-lymphotropic virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Deltaretrovirus*	*Primate T-lymphotropic virus 1*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Deltaretrovirus*	*Primate T-lymphotropic virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Deltaretrovirus*	*Primate T-lymphotropic virus 2*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Deltaretrovirus*	*Primate T-lymphotropic virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Deltaretrovirus*	*Primate T-lymphotropic virus 3*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Epsilonretrovirus*	*Walleye dermal sarcoma viru*	1	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Epsilonretrovirus*	*Walleye dermal sarcoma virus*	1	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Epsilonretrovirus*	*Walleye epidermal hyperplas*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Epsilonretrovirus*	*Walleye epidermal hyperplasia*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Epsilonretrovirus*	*Walleye epidermal hyperplas*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Epsilonretrovirus*	*Walleye epidermal hyperplasia*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Chick syncytial virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Chick syncytial virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Feline leukemia virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Feline leukemia virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Finkel-Biskis-Jinkins murine s*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Finkel-Biskis-Jinkins murine sarc*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Gardner-Arnstein feline sarc*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Gardner-Arnstein feline sarcom*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Gibbon ape leukemia virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Gibbon ape leukemia virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Guinea pig type-C oncovirus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Guinea pig type-C oncovirus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Hardy-Zuckerman feline sarc*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Hardy-Zuckerman feline sarcom*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Harvey murine sarcoma virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Harvey murine sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Kirsten murine sarcoma virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Kirsten murine sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Koala retrovirus*	0	AF151794	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Koala retrovirus*	0	AF151794	koala retrovirus				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Moloney murine sarcoma viru*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Moloney murine sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Murine leukemia virus*	1	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Murine leukemia virus*	1	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Porcine type-C oncovirus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Porcine type-C oncovirus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Reticuloendotheliosis virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Reticuloendotheliosis virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Snyder-Theilen feline sarcom*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Snyder-Theilen feline sarcoma v*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Trager duck spleen necrosis v*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Trager duck spleen necrosis viru*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Viper retrovirus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Viper retrovirus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Gammaretrovirus*	*Woolly monkey sarcoma viru:*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Gammaretrovirus*	*Woolly monkey sarcoma virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Bovine immunodeficiency viru*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Bovine immunodeficiency virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Caprine arthritis encephalitis*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Caprine arthritis encephalitis vir*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Equine infectious anemia viru*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Equine infectious anemia virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Feline immunodeficiency viru*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Feline immunodeficiency virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Human immunodeficiency vir*	1	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Human immunodeficiency virus*	1	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Human immunodeficiency vir*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Human immunodeficiency virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Jembrana disease virus*	0	L32870	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Jembrana disease virus*	0	L32870	Jembrana disease virus isolate Tabanan/87				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Puma lentivirus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Puma lentivirus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Simian immunodeficiency viru*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Simian immunodeficiency virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Orthoretrovin*	*Lentivirus*	*Visna/maedi virus*	0	0	*Ortervirales*	*Retroviridae*	*Orthoretrovirina*	*Lentivirus*	*Visna/maedi virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Spumaretrovi*	*Spumavirus*	*African green monkey simian*	0	0	*Ortervirales*	*Retroviridae*	*Spumaretrovirina*	*Spumavirus*	*African green monkey simian fo*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Spumaretrovi*	*Spumavirus*	*Bovine foamy virus*	0	0	*Ortervirales*	*Retroviridae*	*Spumaretrovirina*	*Spumavirus*	*Bovine foamy virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Spumaretrovi*	*Spumavirus*	*Equine foamy virus*	0	0	*Ortervirales*	*Retroviridae*	*Spumaretrovirina*	*Spumavirus*	*Equine foamy virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Spumaretrovi*	*Spumavirus*	*Feline foamy virus*	0	0	*Ortervirales*	*Retroviridae*	*Spumaretrovirina*	*Spumavirus*	*Feline foamy virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Spumaretrovi*	*Spumavirus*	*Macaque simian foamy virus*	0	0	*Ortervirales*	*Retroviridae*	*Spumaretrovirina*	*Spumavirus*	*Macaque simian foamy virus*	0	0	0				species, genus, subfamily and family assigned to new order
unassigned	*Retroviridae*	*Spumaretrovi*	*Spumavirus*	*Simian foamy virus*	1	0	*Ortervirales*	*Retroviridae*	*Spumaretrovirina*	*Spumavirus*	*Simian foamy virus*	1	0	0				species, genus, subfamily and family assigned to new order