







































Taxonomy of the order *Mononegavirales*: update 2017

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Abstract In 2017, the order *Mononegavirales* was expanded by the inclusion of a total of 69 novel species. Five new rhabdovirus genera and one new nyamivirus genus were established to harbor 41 of these species, whereas the remaining new species were assigned to already established genera. Furthermore, non-Latinized

binomial species names replaced all paramyxovirus and pneumovirus species names, thereby accomplishing application of binomial species names throughout the entire order. This article presents the updated taxonomy of the order *Mononegavirales* as now accepted by the International Committee on Taxonomy of Viruses (ICTV).

Members of the International Committee on Taxonomy of Viruses (ICTV) *Bornaviridae*, *Filoviridae*, *Mononegavirales*, *Nyamiviridae*, *Paramyxoviridae*, and *Rhabdoviridae* Study Groups who co-authored this manuscript are listed in “Acknowledgements”.

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Introduction

The virus order *Mononegavirales* was established in 1991 to accommodate related viruses with nonsegmented, linear, single-stranded negative-sense RNA genomes. These viruses were initially assigned to three mononegavirus families: *Filoviridae*, *Paramyxoviridae*, and *Rhabdoviridae* [32, 33]. The families *Bornaviridae* and *Nyamiviridae* joined the order in 1996 [34] and 2014 [1, 25], respectively, followed by the families *Myomonaviridae*, *Pneumoviridae*, and *Sunviridae* in 2016 [2]. The order was continuously amended in 1995 [7], 1997 [35], 2000 [36], 2005 [37], 2011 [17], and 2016 [2]. In 2016, the Study Groups of the International Committee on Taxonomy of Viruses (ICTV) responsible for the taxonomy of the order and its eight families assigned unclassified mononegaviruses to existing or novel taxa and continued efforts to streamline order nomenclature. Here we present the changes that were (re)proposed via official ICTV taxonomic proposals (TaxoProps) at <http://www.ictvonline.org/> in 2016 and that were accepted by the ICTV Executive Committee. These changes are official ICTV taxonomy as of 2017.

Taxonomic changes at the order level

No changes were made at the order level.

Taxonomic changes at the family level

Bornaviridae

The family *Bornaviridae* remains monogeneric but was expanded in 2017 by one species (*Mammalian 2 bornavirus*) for the newly discovered variegated squirrel bornavirus 1 [23] (TaxoProp 2016.013aM.A.v1.Bornavirus_sp).

Filoviridae

No changes were made to this family.

Myomonaviridae

No changes were made to this family.

Nyamiviridae

The family *Nyamiviridae* was expanded to include a third genus (*Peropuvirus*) including the new species *Pteromalus puparum peropuvirus* for a virus recently discovered in parasitoid wasps, *Pteromalus puparum* negative-strand RNA virus 1 [45] (TaxoProp 2016.015a-dM.A.v1.Peropuvirus).

Paramyxoviridae

The non-Latinized binomial species name format [40] was applied throughout the family *Paramyxoviridae* (TaxoProp

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2016.011aM.A.v2.Paramyxoviridae_spren). In addition, the genus *Avulavirus* was expanded by one novel species, *Avian avulavirus 13*, for avian paramyxovirus 13 discovered in geese [19, 24, 47] (TaxoProp 2016.001a,bM.A.v2.Avulavirus_spren). The genus *Rubulavirus* was expanded by 10 species to accommodate two long-known viruses (e.g., Menangle virus, Tioman virus) and eight newly discovered bat viruses (bat mumps virus, Achimota viruses 1 and 2, Sosuga virus, Teviot virus, Tuhoko viruses 1–3) [3, 5, 11, 12, 16, 26] (TaxoProp 2015.016aM.A.v3.-Rubulavirus_10sp). Finally, the previous species name *Newcastle disease virus* was changed to *Avian avulavirus 1* to reflect the fact that “Newcastle disease virus” is but one strain of the member virus of this species, avian paramyxovirus 1 (APMV-1) [46] (TaxoProp 2016.001a,bM.A.v2.Avulavirus_spren).

Pneumoviridae

The non-Latinized binomial species name format [40] was applied throughout the family *Pneumoviridae* (TaxoProp 2016.012aM.A.v1.Pneumoviridae_spren).

Rhabdoviridae

The most extensive changes were introduced into the family *Rhabdoviridae*. The new genus *Almendravirus* was created to include five new species (TaxoProp 2016.002a-dM.A.v3.Almendravirus) to accommodate mosquito viruses discovered from 2009–2013 (Arboretum virus, Balsa virus, Coot Bay virus, Puerto Almendras virus, and Rio Chico virus) [13, 43, 44]. The new genus *Curiovirus*, including four new species, was created for unclassified dipteran viruses known since the 1970s–80s (Curionopolis virus, Iriri virus, Itacaiunas virus, Rochambeau virus) (TaxoProp 2016.003a-dM.A.v3.Curiovirus) [14, 15, 44]. Twelve mostly dipteran viruses (Hart Park virus, Gray Lodge virus, Joinjakaka virus, Kamese virus, La Joya virus, Landjia virus, Manitoba virus, Marco virus, Mosquito virus, Mossuril virus, Ord River virus, and Parry Creek virus), isolated in the 1950s to late 1970s, were classified into twelve new species in the new genus *Hapavirus*. The previously free-floating rhabdovirus species *Flanders virus*, *Ngaingan virus*, and *Wongabel virus* were moved into the genus *Hapavirus* and renamed accordingly (*Flanders hapavirus*, *Ngaingan hapavirus*, and *Wongabel*

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hapavirus, respectively) [4, 21, 44] (TaxoProp 2016.005a-gM.A.v4.Hapavirus). The largest newly created rhabdovirus genus is *Ledantevirus*. This genus includes 14 new species for Barur virus, Fikirini virus, Fukuoka virus, Kern Canyon virus, Keuraliba virus, Kolente virus, Kumasi rhabdovirus, Le Dantec virus, Mount Elgon bat virus, Nkolbisson virus, Nishimuro virus, Oita virus, Wùhàn louse fly virus 5, and Yǒngjiā tick virus 2, which were isolated from or detected in arthropods and/or mammals [6, 10, 18, 28, 38, 44] (TaxoProp 2016.006a-dM.A.v2.Ledantevirus). Finally, the novel genus *Sripuvirus* was created to include five new species for sandfly and lizard viruses (Almpiwar virus, Chaco virus, Niakha virus, Sena Madureira virus, and Sripur virus) [29, 41, 44] (TaxoProp 2016.007a-dM.A.v5.Sripuvirus).

The existing genus *Cytorhabdovirus* was expanded by inclusion of the novel species *Colocasia bobone disease-associated cytorhabdovirus* for a plant virus first described in 1973 in the taro plant (*Colocasia esculenta*) [22] (TaxoProp 2016.017aM.A.v1.Cytorhabdovirus_sp). The genus *Ephemerovirus* was enlarged by three species to accommodate the long-known bovid viruses Kimberley and Koolpinyah, and the mosquito-borne Malakal and Yata viruses [8, 9] (TaxoProp 2016.004aM.A.v2.Ephemerovirus_3sp). The recently described, possibly human, Bas-Congo virus and Ekpoma viruses 1 and 2, and the biting midge-borne Sweetwater Branch virus were classified into four new species of the genus

Tibrovirus [20, 27, 39, 44] (TaxoProp 2016.008aM.A.v3.Tibrovirus_4sp). Klamath virus, discovered in 1962 in a vole, was assigned to a novel species in the genus *Tupavirus* [44] (TaxoProp 2016.009aM.A.v2.Tupavirus_sp), and seven new species were added to the genus *Vesiculovirus* for American bat vesiculovirus (isolated from bats in 2008) and Jurona virus, Malpais Spring virus, Morreton virus, Perinet virus, Radi virus, and Yug Bogdanovac virus (isolated from mosquitoes or sandflies in 1962–1986) [22, 30, 31, 42, 44] (TaxoProp 016.010aM.A.v3.Vesiculovirus_7sp).

Finally, the existing species names *Oncorhynchus 1 novirhabdovirus* (formerly *Infectious hematopoietic necrosis virus*) and *Oncorhynchus 2 novirhabdovirus* (formerly *Viral hemorrhagic septicemia virus*) were changed to *Salmonid novirhabdovirus* and *Piscine novirhabdovirus*, respectively, to be more reflective of the host spectrum of their members. (2016.018aM.A.v1.Novirhabdovirus_spren).

Sunviridae

In 2017, no changes were made to this family.

Summary

A summary of the current, ICTV-accepted taxonomy of the order *Mononegavirales* is presented in Table 1.

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Table 1 ICTV-accepted taxonomy of the order *Mononegavirales* as of 2017

Genus	Species [¶]	Virus (Abbreviation) [¶]	
Family <i>Bornaviridae</i>			
<i>Bornavirus</i>	<i>Elapid 1 bornavirus</i>	Loveridge's garter snake virus 1 (LGSV-1)	
	<i>Mammalian 1 bornavirus*</i>	Borna disease virus 1 (BoDV-1) Borna disease virus 2 (BoDV-2)	
	<i>Mammalian 2 bornavirus</i>	variegated squirrel bornavirus 1 (VSBV-1)	
	<i>Passeriform 1 bornavirus</i>	canary bornavirus 1 (CnBV-1) canary bornavirus 2 (CnBV-2) canary bornavirus 3 (CnBV-3)	
	<i>Passeriform 2 bornavirus</i>	estrildid finch bornavirus 1 (EsBV-1)	
	<i>Psittaciform 1 bornavirus</i>	parrot bornavirus 1 (PaBV-1) parrot bornavirus 2 (PaBV-2) parrot bornavirus 3 (PaBV-3) parrot bornavirus 4 (PaBV-4) parrot bornavirus 7 (PaBV-7)	
	<i>Psittaciform 2 bornavirus</i>	parrot bornavirus 5 (PaBV-5)	
	<i>Waterbird 1 bornavirus</i>	aquatic bird bornavirus 1 (ABBV-1) aquatic bird bornavirus 2 (ABBV-2)	
	Family <i>Filoviridae</i>		
	<i>Cuevavirus</i>	<i>Lloviu cuevavirus*</i>	Lloviu virus (LLOV)
	<i>Ebolavirus</i>	<i>Bundibugyo ebolavirus</i>	Bundibugyo virus (BDBV)
		<i>Reston ebolavirus</i>	Reston virus (RESTV)
		<i>Sudan ebolavirus</i>	Sudan virus (SUDV)
		<i>Taï Forest ebolavirus</i>	Taï Forest virus (TAFV)
<i>Zaire ebolavirus*</i>		Ebola virus (EBOV)	
<i>Marburgvirus</i>	<i>Marburg marburgvirus*</i>	Marburg virus (MARV) Ravn virus (RAVV)	
	Family <i>Myonaviridae</i>		
<i>Sclerotimonavirus</i>	<i>Sclerotinia sclerotimonavirus*</i>	Sclerotinia sclerotiorum negative-stranded RNA virus 1 (SsNSRV-1)	
Family <i>Nyamiviridae</i>			
<i>Nyavirus</i>	<i>Midway nyavirus</i>	Midway virus (MIDWV)	
	<i>Nyamanini nyavirus*</i>	Nyamanini virus (NYMV)	
	<i>Sierra Nevada nyavirus</i>	Sierra Nevada virus (SNVV)	
<i>Peropuvirus</i>	<i>Pteromalus puparum peropuvirus*</i>	Pteromalus puparum negative-strand RNA virus 1 (PpNSRV-1)	
<i>Socycivirus</i>	<i>Soybean cyst nematode socycivirus*</i>	soybean cyst nematode virus 1 (SbcNV-1)	
Family <i>Paramyxoviridae</i>			
<i>Aquaparamyxovirus</i>	<i>Salmon aquaparamyxovirus*</i>	Atlantic salmon paramyxovirus (AsaPV)	
<i>Avulavirus</i>	<i>Avian avulavirus 1*</i>	avian paramyxovirus 1 (APMV-1) ¹	
	<i>Avian avulavirus 2</i>	avian paramyxovirus 2 (APMV-2)	
	<i>Avian avulavirus 3</i>	avian paramyxovirus 3 (APMV-3)	
	<i>Avian avulavirus 4</i>	avian paramyxovirus 4 (APMV-4)	
	<i>Avian avulavirus 5</i>	avian paramyxovirus 5 (APMV-5)	
	<i>Avian avulavirus 6</i>	avian paramyxovirus 6 (APMV-6)	
	<i>Avian avulavirus 7</i>	avian paramyxovirus 7 (APMV-7)	
	<i>Avian avulavirus 8</i>	avian paramyxovirus 8 (APMV-8)	
	<i>Avian avulavirus 9</i>	avian paramyxovirus 9 (APMV-9)	
	<i>Avian avulavirus 10</i>	avian paramyxovirus 10 (APMV-10)	
	<i>Avian avulavirus 11</i>	avian paramyxovirus 11 (APMV-11)	
	<i>Avian avulavirus 12</i>	avian paramyxovirus 12 (APMV-12)	
	<i>Avian avulavirus 13</i>	avian paramyxovirus 13 (APMV-13)	
<i>Ferlavirus</i>	<i>Reptilian ferlavirus*</i>	Fer-de-Lance virus (FDLV) ²	
<i>Henipavirus</i>	<i>Cedar henipavirus</i>	Cedar virus (CedV)	

Table 1 continued

Genus	Species [†]	Virus (Abbreviation) [‡]
<i>Morbillivirus</i>	<i>Ghanaian bat henipavirus</i>	Kumasi virus (KV) ³
	<i>Hendra henipavirus</i> *	Hendra virus (HeV)
	<i>Mojiang henipavirus</i>	Mòjiāng virus (MojV)
	<i>Nipah henipavirus</i>	Nipah virus (NiV)
	<i>Canine morbillivirus</i>	canine distemper virus (CDV)
	<i>Cetacean morbillivirus</i>	cetacean morbillivirus (CeMV)
	<i>Feline morbillivirus</i>	feline morbillivirus (FeMV)
	<i>Measles morbillivirus</i> *	measles virus (MeV)
	<i>Small ruminant morbillivirus</i>	peste-des-petits-ruminants virus (PPRV)
	<i>Phocine morbillivirus</i>	phocine distemper virus (PDV)
<i>Respirovirus</i>	<i>Rinderpest morbillivirus</i>	rinderpest virus (RPV)
	<i>Bovine respirovirus 3</i>	bovine parainfluenza virus 3 (BPIV-3)
	<i>Human respirovirus 1</i>	human parainfluenza virus 1 (HPIV-1)
	<i>Human respirovirus 3</i>	human parainfluenza virus 3 (HPIV-3)
	<i>Porcine respirovirus 1</i>	porcine parainfluenza virus 1 (PPIV-1)
<i>Rubulavirus</i>	<i>Murine respirovirus</i> *	Sendai virus (SeV) ⁴
	<i>Achimota rubulavirus 1</i>	Achimota virus 1 (AchPV-1)
	<i>Achimota rubulavirus 2</i>	Achimota virus 2 (AchPV-2)
	<i>Bat mumps rubulavirus</i>	bat mumps virus (BMV) ⁵
	<i>Canine rubulavirus</i>	parainfluenza virus 5 (PIV-5) ⁶
	<i>Human rubulavirus 2</i>	human parainfluenza virus 2 (HPIV-2)
	<i>Human rubulavirus 4</i>	human parainfluenza virus 4a (HPIV-4a)
		human parainfluenza virus 4b (HPIV-4b)
	<i>Mapuera rubulavirus</i>	Mapuera virus (MapV)
	<i>Menangle rubulavirus</i>	Menangle virus (MenPV)
	<i>Mumps rubulavirus</i> *	mumps virus (MuV)
	<i>Porcine rubulavirus</i>	La Piedad Michoacán Mexico virus (LPMV) ⁷
	<i>Simian rubulavirus</i>	simian virus 41 (SV-41)
	<i>Sosuga rubulavirus</i>	Sosuga virus
	<i>Teviot rubulavirus</i>	Teviot virus (TevPV)
	<i>Tioman rubulavirus</i>	Tioman virus (TioPV)
	<i>Tuhoko rubulavirus 1</i>	Tuhoko virus 1 (ThkPV-1)
<i>Tuhoko rubulavirus 2</i>	Tuhoko virus 2 (ThkPV-2)	
<i>Tuhoko rubulavirus 3</i>	Tuhoko virus 3 (ThkPV-3)	
Family <i>Pneumoviridae</i>		
<i>Metapneumovirus</i>	<i>Avian metapneumovirus</i> *	avian metapneumovirus (AMPV) ⁸
	<i>Human metapneumovirus</i>	human metapneumovirus (HMPV)
<i>Orthopneumovirus</i>	<i>Bovine orthopneumovirus</i>	bovine respiratory syncytial virus (BRSV)
	<i>Human orthopneumovirus</i> *	human respiratory syncytial virus A2 (HRSV-A2)
		human respiratory syncytial virus B1 (HRSV-B1)
	<i>Murine orthopneumovirus</i>	murine pneumonia virus (MPV)
Family <i>Rhabdoviridae</i>		
<i>Almendravirus</i>	<i>Arboretum almindravirus</i>	Arboretum virus (ABTV)
	<i>Balsa almindravirus</i>	Balsa virus (BALV)
	<i>Coot Bay almindravirus</i>	Coot Bay virus (CBV)
	<i>Puerto Almendras almindravirus</i> *	Puerto Almendras virus (PTAMV)
	<i>Rio Chico almindravirus</i>	Rio Chico virus (RCHV)
<i>Curiovirus</i>	<i>Curionopolis curiovirus</i> *	Curionopolis virus (CURV)
	<i>Irii curiovirus</i>	Irii virus (IRIV)
	<i>Itacaiunas curiovirus</i>	Itacaiunas virus (ITAV)
	<i>Rochambeau curiovirus</i>	Rochambeau virus (RBUV)
<i>Cytorhabdovirus</i>	<i>Alfalfa dwarf cytorhabdovirus</i>	alfalfa dwarf virus (ADV)

Table 1 continued

Genus	Species [†]	Virus (Abbreviation) [†]
	<i>Barley yellow striate mosaic cytorhabdovirus</i>	barley yellow striate mosaic virus (BYSMV)
	<i>Broccoli necrotic yellows cytorhabdovirus</i>	broccoli necrotic yellows virus (BNYV)
	<i>Colocasia bobone disease-associated cytorhabdovirus</i>	Colocasia bobone disease-associated virus (CBDaV)
	<i>Festuca leaf streak cytorhabdovirus</i>	festuca leaf streak virus (FLSV)
	<i>Lettuce necrotic yellows cytorhabdovirus*</i>	lettuce necrotic yellows virus (LNYV)
	<i>Lettuce yellow mottle cytorhabdovirus</i>	lettuce yellow mottle virus (LYMoV)
	<i>Northern cereal mosaic cytorhabdovirus</i>	northern cereal mosaic virus (NCMV)
	<i>Sonchus cytorhabdovirus 1</i>	sonchus virus (SonV)
	<i>Strawberry crinkle cytorhabdovirus</i>	strawberry crinkle virus (SCV)
	<i>Wheat American striate mosaic cytorhabdovirus</i>	wheat American striate mosaic virus (WASMV)
<i>Dichorhavirus</i>	<i>Coffee ringspot dichorhavirus</i>	coffee ringspot virus (CoRSV)
	<i>Orchid fleck dichorhavirus*</i>	orchid fleck virus (OFV) ⁹
<i>Ephemerovirus</i>	<i>Adelaide River ephemerovirus</i>	Adelaide River virus (ARV)
	<i>Berrimah ephemerovirus</i>	Berrimah virus (BRMV)
	<i>Bovine fever ephemerovirus*</i>	bovine ephemeral fever virus (BEFV) ¹⁰
	<i>Kimberley ephemerovirus</i>	Kimberley virus (KIMV)
	<i>Koolpinyah ephemerovirus</i>	Malakal virus (MALV)
	<i>Kotonkan ephemerovirus</i>	Koolpinyah virus (KOOLV)
	<i>Obodhiang ephemerovirus</i>	kotonkan virus (KOTV)
	<i>Yata ephemerovirus</i>	Obodhiang virus (OBOV)
<i>Hapavirus</i>	<i>Flanders hapavirus</i>	Yata virus (YATV)
	<i>Hart Park hapavirus</i>	Flanders virus (FLAV)
	<i>Gray Lodge hapavirus</i>	Hart Park virus (HPV)
	<i>Joinjakaka hapavirus</i>	Gray Lodge virus (GLOV)
	<i>La Joya hapavirus</i>	Joinjakaka virus (JOIV)
	<i>Kamese hapavirus</i>	La Joya virus (LJV)
	<i>Landjia hapavirus</i>	Kamese virus (KAMV)
	<i>Manitoba hapavirus</i>	Landjia virus (LANV = LJAV)
	<i>Marco hapavirus</i>	Manitoba virus (MANV = MNTBV)
	<i>Mosqueiro hapavirus</i>	Marco virus (MCOV)
	<i>Mossuril hapavirus</i>	Mosqueiro virus (MQOV)
	<i>Ngaingan hapavirus</i>	Mossuril virus (MOSV)
	<i>Ord River hapavirus</i>	Ngaingan virus (NGAV)
	<i>Parry Creek hapavirus</i>	Ord River virus (ORV)
	<i>Wongabel hapavirus*</i>	Parry Creek virus (PCV)
<i>Ledantevirus</i>	<i>Barur ledantevirus</i>	Wongabel virus (WONV)
	<i>Fikirini ledantevirus</i>	Barur virus (BARV)
	<i>Fukuoka ledantevirus</i>	Fikirini virus (FKRV)
	<i>Kern Canyon ledantevirus</i>	Fukuoka virus (FUKV)
	<i>Keuraliba ledantevirus</i>	Kern Canyon virus (KCV)
	<i>Kolente ledantevirus</i>	Keuraliba virus (KEUV)
	<i>Kumasi ledantevirus</i>	Kolente virus (KOLEV)
	<i>Le Dantec ledantevirus*</i>	Kumasi rhabdovirus (KRV)
	<i>Mount Elgon bat ledantevirus</i>	Le Dantec virus (LDV)
	<i>Nkolbisson ledantevirus</i>	Mount Elgon bat virus (MEBV)
	<i>Nishimuro ledantevirus</i>	Nkolbisson virus (NKOV)
	<i>Oita ledantevirus</i>	Nishimuro virus (NISV) ¹¹
	<i>Wuhan ledantevirus</i>	Oita virus (OITAV)
	<i>Yongjia ledantevirus</i>	Wuhan louse fly virus 5 (WLFV-5)
<i>Lyssavirus</i>	<i>Aravan lyssavirus</i>	Yongjia tick virus 2 (YTV-2)
	<i>Australian bat lyssavirus</i>	Aravan virus (ARAV)
	<i>Bokeloh bat lyssavirus</i>	Australian bat lyssavirus (ABLV)
		Bokeloh bat lyssavirus (BBLV)

Table 1 continued

Genus	Species [†]	Virus (Abbreviation) [†]
	<i>Duvenhage lyssavirus</i>	Duvenhage virus (DUVV)
	<i>European bat 1 lyssavirus</i>	European bat lyssavirus 1 (EBLV-1)
	<i>European bat 2 lyssavirus</i>	European bat lyssavirus 2 (EBLV-2)
	<i>Ikoma lyssavirus</i>	Ikoma lyssavirus (IKOV)
	<i>Irkut lyssavirus</i>	Irkut virus (IRKV)
	<i>Khujand lyssavirus</i>	Khujand virus (KHUV)
	<i>Lagos bat lyssavirus</i>	Lagos bat virus (LBV)
	<i>Mokola lyssavirus</i>	Mokola virus (MOKV)
	<i>Rabies lyssavirus*</i>	rabies virus (RABV)
	<i>Shimoni bat lyssavirus</i>	Shimoni bat virus (SHIBV)
	<i>West Caucasian bat lyssavirus</i>	West Caucasian bat virus (WCBV)
<i>Novirhabdovirus</i>	<i>Hirame novirhabdovirus</i>	Hirame rhabdovirus (HIRV)
	<i>Piscine novirhabdovirus</i>	viral hemorrhagic septicemia virus (VHSV) ¹²
	<i>Salmonid novirhabdovirus*</i>	infectious hematopoietic necrosis virus (IHNV)
	<i>Snakehead novirhabdovirus</i>	snakehead rhabdovirus (SHRV)
<i>Nucleorhabdovirus</i>	<i>Datura yellow vein nucleorhabdovirus</i>	datura yellow vein virus (DYVV)
	<i>Eggplant mottled dwarf nucleorhabdovirus</i>	eggplant mottled dwarf virus (EMDV)
	<i>Maize fine streak nucleorhabdovirus</i>	maize fine streak virus (MSFV)
	<i>Maize Iranian mosaic nucleorhabdovirus</i>	maize Iranian mosaic virus (MIMV)
	<i>Maize mosaic nucleorhabdovirus</i>	maize mosaic virus (MMV)
	<i>Potato yellow dwarf nucleorhabdovirus*</i>	potato yellow dwarf virus (PYDV)
	<i>Rice yellow stunt nucleorhabdovirus</i>	rice yellow stunt virus (RYSV)
	<i>Sonchus yellow net nucleorhabdovirus</i>	sonchus yellow net virus (SYNV)
	<i>Sowthistle yellow vein nucleorhabdovirus</i>	sowthistle yellow vein virus (SYVV)
	<i>Taro vein chlorosis nucleorhabdovirus</i>	taro vein chlorosis virus (TaVCoV)
<i>Perhabdovirus</i>	<i>Anguillid perhabdovirus</i>	eel virus European X (EVEV)
	<i>Perch perhabdovirus*</i>	perch rhabdovirus (PRV)
	<i>Sea trout perhabdovirus</i>	lake trout rhabdovirus (LTRV)
<i>Sigmavirus</i>	<i>Drosophila affinis sigmavirus</i>	<i>Drosophila affinis</i> sigmavirus (DAffSV)
	<i>Drosophila ananassae sigmavirus</i>	<i>Drosophila ananassae</i> sigmavirus (DAnaSV)
	<i>Drosophila immigrans sigmavirus</i>	<i>Drosophila immigrans</i> sigmavirus (DImmSV)
	<i>Drosophila melanogaster sigmavirus*</i>	<i>Drosophila melanogaster</i> sigmavirus (DMelSV)
	<i>Drosophila obscura sigmavirus</i>	<i>Drosophila obscura</i> sigmavirus (DObsSV)
	<i>Drosophila tristis sigmavirus</i>	<i>Drosophila tristis</i> sigmavirus (DTrisSV)
	<i>Muscina stabulans sigmavirus</i>	<i>Muscina stabulans</i> sigmavirus (MStSV)
<i>Sprivirus</i>	<i>Carp sprivirus*</i>	spring viremia of carp virus (SVCV)
	<i>Pike fry sprivirus</i>	grass carp rhabdovirus (GrCRV)
		pike fry rhabdovirus (PFRV)
		tench rhabdovirus (TenRV)
<i>Sripuvirus</i>	<i>Almpiwar sripuvirus</i>	Almpiwar virus (ALMV)
	<i>Chaco sripuvirus</i>	Chaco virus (CHOV)
	<i>Niakha sripuvirus*</i>	Niakha virus (NIAV)
	<i>Sena Madueira sripuvirus</i>	Sena Madueira virus (SMV)
	<i>Sripur sripuvirus</i>	Sripur virus (SRIV)
<i>Tibrovirus</i>	<i>Bas-Congo tibrovirus</i>	Bas-Congo virus (BASV)
	<i>Coastal Plains tibrovirus</i>	Coastal Plains virus (CPV)
	<i>Ekpoma 1 tibrovirus</i>	Ekpoma virus 1 (EKV-1)
	<i>Ekpoma 2 tibrovirus</i>	Ekpoma virus 2 (EKV-2)
	<i>Sweetwater Branch tibrovirus</i>	Sweetwater Branch virus (SWBV)
	<i>Tibrogargan tibrovirus*</i>	Bivens Arm virus (BAV)
		Tibrogargan virus (TIBV)

Table 1 continued

Genus	Species [¶]	Virus (Abbreviation) [¶]
<i>Tupavirus</i>	<i>Durham tupavirus</i> *	Durham virus (DURV)
	<i>Klamath tupavirus</i>	Klamath virus (KLAV)
	<i>Tupaia tupavirus</i>	tupaia virus (TUPV)
<i>Varicosavirus</i>	<i>Lettuce big-vein associated varicosavirus</i> *	lettuce big-vein associated virus (LBVaV) ¹³
<i>Vesiculovirus</i>	<i>Alagoas vesiculovirus</i>	vesicular stomatitis Alagoas virus (VSAV)
	<i>American bat vesiculovirus</i>	American bat vesiculovirus (ABVV)
	<i>Carajas vesiculovirus</i>	Carajás virus (CJSV)
	<i>Chandipura vesiculovirus</i>	Chandipura virus (CHPV)
	<i>Cocal vesiculovirus</i>	Cocal virus (COCV)
	<i>Indiana vesiculovirus</i> *	vesicular stomatitis Indiana virus (VSIV)
	<i>Isfahan vesiculovirus</i>	Isfahan virus (ISFV)
	<i>Jurona vesiculovirus</i>	Jurona virus (JURV)
	<i>Malpais Spring vesiculovirus</i>	Malpais Spring virus (MSPV)
	<i>Maraba vesiculovirus</i>	Maraba virus (MARAV)
	<i>Morreton vesiculovirus</i>	Morreton virus (MORV)
	<i>New Jersey vesiculovirus</i>	vesicular stomatitis New Jersey virus (VSNJV)
	<i>Perinet vesiculovirus</i>	Perinet virus (PERV)
	<i>Piry vesiculovirus</i>	Piry virus (PIRYV)
	<i>Radi vesiculovirus</i>	Radi virus (RADV)
<i>Yug Bogdanovac vesiculovirus</i>	Yug Bogdanovac virus (YBV)	
Unassigned	<i>Moussa virus</i>	Moussa virus (MOUV)
Family <i>Sunviridae</i>		
<i>Sunshinevirus</i>	<i>Reptile sunshinevirus 1</i> *	Sunshine Coast virus (SunCV)
Unassigned		
<i>Anphevirus</i>	<i>Xincheng anphevirus</i> *	Xīnchéng mosquito virus (XcMV)
<i>Arlivirus</i>	<i>Lishi arlivirus</i> *	Líshí spider virus 2 (LsSV-2)
<i>Chengtivirus</i>	<i>Tacheng chengtivirus</i> *	Tǎchéng tick virus 6 (TcTV-6)
<i>Crustavirus</i>	<i>Wenzhou crustavirus</i> *	Wēnzhōu crab virus 1 (WzCV-1)
<i>Wastrivirus</i>	<i>Sanxia wastrivirus</i> *	Sānxiá water strider virus 4 (SxWSV-4)

* Asterisks denote type species. [¶] Please note that viruses are real objects that are assigned to concepts that are called taxa. Species, genera, families, and orders are taxa. The taxonomic changes listed here pertain to taxon name changes and do not affect virus names. Taxon names are always italicized and always begin with a capital letter. Virus names, on the other hand, are not italicized and are not capitalized, except if the name or a name component is a proper noun. For educational purposes, this column lists the virus names with their correct (lack of) capitalization

¹ Includes: Newcastle disease virus (NDV) and pigeon paramyxovirus 1 (PPMV-1); ² synonym: anaconda paramyxovirus; ³ synonym: GH-M74a virus; ⁴ synonym: murine parainfluenza virus 1; ⁵ synonym: bat paramyxovirus; ⁶ synonym: simian virus 5; ⁷ synonym: porcine rubulavirus; ⁸ synonyms: avian pneumovirus, turkey rhinotracheitis virus; ⁹ synonyms: citrus leprosis virus nuclear type, citrus necrotic spot virus; ¹⁰ synonym: Tzipori virus; ¹¹ synonym: wild boar rhabdovirus 1 (WBRV1); ¹² synonyms: Egtved virus, *Paralichthys olivaceus* rhabdovirus; ¹³ synonym: tobacco stunt virus

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Compliance with ethical standards

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