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Changes to taxonomy and the International Code of Virus Classification and Nomenclature ratified by the International Committee on Taxonomy of Viruses (2018) --Manuscript Draft--

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Abstract:	<p>This article lists the changes to virus taxonomy approved and ratified by the International Committee on Taxonomy of Viruses in February 2018. A total of 451 species, 69 genera, 11 subfamilies, 9 families and one new order were added to the taxonomy. The current totals at each taxonomic level now stand at 9 orders, 132 families, 46 subfamilies, 804 genera and 4853 species. A change was made to the International Code of Virus Classification and Nomenclature to allow the use of the names of people in taxon names under appropriate circumstances. An updated Master Species List incorporating the approved changes was released in March 2018 (https://talk.ictvonline.org/taxonomy/).</p>	

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Virology Division News

Changes to taxonomy and the International Code of Virus Classification and Nomenclature ratified by the International Committee on Taxonomy of Viruses (2018)

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Abstract

This article lists the changes to virus taxonomy approved and ratified by the International Committee on Taxonomy of Viruses in February 2018. A total of 451 species, 69 genera, 11 subfamilies, 9 families and one new order were added to the taxonomy. The current totals at each taxonomic level now stand at 9 orders, 132 families, 46 subfamilies, 804 genera and 4853 species. A change was made to the International Code of Virus Classification and Nomenclature to allow the use of the names of people in taxon names under appropriate circumstances. An updated Master Species List incorporating the approved changes was released in March 2018 (<https://talk.ictvonline.org/taxonomy/>).

Introduction

Changes to virus taxonomy (the Universal Scheme of Virus Classification of the International Committee on Taxonomy of Viruses [ICTV]) take place annually and are the result of a multi-stage process. In accordance with ICTV Statutes (<http://www.ictv.global/statutes.asp>) and ICTV Executive Committee (EC) procedures, proposals undergo a review process involving input from the ICTV Study Groups (SGs) and Subcommittees (SCs), other interested virologists, and the EC. Proposals may thus be considered on more than one occasion before they are submitted for ratification by the ICTV membership. Proposals are presented for ratification to the full ICTV membership by publication on the ICTV website (<http://www.ictv.global>) followed by an electronic vote. The latest set of proposals approved by the EC was made available on the ICTV website in January 2017 (see <http://ictv.global/proposals-2017> for all proposals combined into a single zip file, and use the links provided in the References to access individual proposals). A list of proposals was then emailed on January 24, 2018 to the 160 members of ICTV, namely the EC Members, Life Members, ICTV Subcommittee Members (including the SG chairs) and ICTV National Representatives. Members were then requested to vote on whether to ratify the taxonomic proposals (voting closed on February 25, 2018).

Since the processing of this year's proposals overlapped the end of the 2014-2017 EC tenure and the start of the 2017-2020 EC tenure, members of the both ECs constitute the authorship of this article.

Changes to virus taxonomy: taxa and nomenclature

Large number of changes were ratified by ICTV members (Table 1). Increase in the number of all taxa compared to the 2017 taxonomy was within the range of 9-11%, except for the number of subfamilies, which grew by 31%.

A summary of the individual proposals is provided in Table 2. Names of newly created taxa are in ***bold italic*** type. Names of existing taxa that have been moved or renamed are shown in *plain italic* type. Each proposal is cited and listed in the References, in order to acknowledge the authors' efforts and to provide links to the specific proposal on the ICTV website. These documents remain available for any who wish to see the full details of the proposals.

Changes to the International Code of Virus Classification and Nomenclature

ICTV has adopted one change to the Code, by ratifying Proposal 2017.003G.A.v2.ICVCN_Rule_3.11_Change. "Change ICVCN Rule 3.11 to permit, with limitations, the names of people to be recognised in names of taxa". As with many other proposals dealing with general approaches to virus taxonomy and nomenclature, this proposed change was a subject of a lively debate in the community, and was adopted by the overwhelming majority of the ICTV. This change also allowed the creation of two new taxa in the order *Caudovirales*, i.e., the family *Ackermannviridae*, to honor Hans-Wolfgang Ackermann (1936-2017), a former Life Member of the ICTV and Professor Emeritus at Université Laval, for his foundational contributions to the biology and taxonomy of prokaryotic viruses, and the subfamily *McCleskeyvirinae*, to honor Charles Shelton McCleskey (1904-1984), Professor Emeritus at Louisiana State University, for his pioneering work on viruses of *Leuconostoc* bacteria.

Conclusion

All of the taxonomic proposals listed below were approved by the 87-95 affirming votes from the 96 members who voted (a return rate of about 60%). The changes are now part of the official ICTV taxonomy. Several proposals that had been discussed at the 2017 EC meeting were not included in the ballot because they needed further development. Several other proposals were found, after completion of the ratification rate, to contain typographical errors in species' names. According to the current ICTV procedures, these errors will need to be corrected by additional proposals to be submitted to the 2018 EC meeting. An up-to-date list of all approved taxa can be found on the ICTV website at <http://ictv.global/msl>.

Declarations

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None of the work reported involved research on human participants or animals. All authors have contributed to this work and agreed to its publication.

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<http://ictv.global/proposals-17/2017.004B.A.v1.Chebruvirinae.zip>

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13 *Spumaretrovirinae*, create four genera (*Bovispumavirus*, *Equispumavirus*,
14 *Felispumavirus*, *Prosimiispumavirus*) and change the names of genus *Spumavirus* to
15 *Semiispumavirus* and its constituent species likewise. [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.006D.A.v2.Spumaretrovirinae_4gen.zip)
16 [17/2017.006D.A.v2.Spumaretrovirinae_4gen.zip](http://ictv.global/proposals-17/2017.006D.A.v2.Spumaretrovirinae_4gen.zip)
- 17 32. Calvignac-Spencer S, Daugherty MD, Feltkamp MCW, Lauber C, Moens U, Ramqvist T,
18 Verschoor EJ, Ehlers B (ehlersb@rki.de). Proposal
19 2017.007D.A.v2.Polyomaviridae_sp. Create 8 species within the family
20 *Polyomaviridae* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.007D.A.v2.Polyomaviridae_sp.zip)
21 [17/2017.007D.A.v2.Polyomaviridae_sp.zip](http://ictv.global/proposals-17/2017.007D.A.v2.Polyomaviridae_sp.zip)
- 22 33. Harrison RL, Herniou EA, Krell PJ, Theilmann DA, Becnel JJ, Jehle JA, Burand JP.
23 Proposal 2017.008D.A.v1.Betabaculovirus_2sp1ren. In genus *Betabaculovirus*
24 (family *Baculoviridae*), create 2 species and rename one species
25 [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.008D.A.v1.Betabaculovirus_2sp1ren.zip)
26 [17/2017.008D.A.v1.Betabaculovirus_2sp1ren.zip](http://ictv.global/proposals-17/2017.008D.A.v1.Betabaculovirus_2sp1ren.zip)
- 27 34. Varsani A (arvind.varsani@asu.edu), Rosario K, Segalés J, Delwart E, Breitbart M.
28 Proposal 2017.009D.A.v1.Circoviridae_4sp. Create two species in each of the genera
29 *Circovirus* and *Cyclovirus*, family *Circoviridae* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.009D.A.v1.Circoviridae_4sp.zip)
30 [17/2017.009D.A.v1.Circoviridae_4sp.zip](http://ictv.global/proposals-17/2017.009D.A.v1.Circoviridae_4sp.zip)
- 31 35. Burk R (robert.burk@einstein.yu.edu), Chen Z. Proposal
32 2017.010D.A.v1.Papillomaviridae_2subf. Create 17 species, 4 genera and 2
33 subfamilies in the family *Papillomaviridae* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.010D.A.v1.Papillomaviridae_2subf.zip)
34 [17/2017.010D.A.v1.Papillomaviridae_2subf.zip](http://ictv.global/proposals-17/2017.010D.A.v1.Papillomaviridae_2subf.zip)
- 35 36. Varsani A (arvind.varsani@asu.edu), Krupovic M (krupovic@pasteur.fr) . Proposal
36 2017.011D.A.v3.Smacoviridae. Create the family *Smacoviridae* containing six genera
37 and 43 species [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.011D.A.v3.Smacoviridae.zip)
38 [17/2017.011D.A.v3.Smacoviridae.zip](http://ictv.global/proposals-17/2017.011D.A.v3.Smacoviridae.zip)
- 39 37. Origgi FC (Francesco.origgi@vetsuisse.unibe.ch). Proposal
40 2017.012D.A.v1.Batrachovirus_sp. Create a species in the genus *Batrachovirus*,
41 family *Alloherpesviridae*, order *Herpesvirales* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.012D.A.v1.Batrachovirus_sp.zip)
42 [17/2017.012D.A.v1.Batrachovirus_sp.zip](http://ictv.global/proposals-17/2017.012D.A.v1.Batrachovirus_sp.zip)
- 43 38. Krupovic M (krupovic@pasteur.fr), Harrach B, Sabanadzovic S, Sanfaçon H, Koonin
44 EV, Kuhn JH, Johnson W, Blomberg J, Coffin J, Fan H, Gifford R, Lindemann D,
45 Mayer J, Stoye J, Tristem M, Teycheney P-Y, Dasgupta I, Geering A, Hull R, Kreuze
46 JF, Lockhart B, Muller E, Olszewski N, Pappu H, Pooggin M, Richert-Pöggeler K,
47 Schoelz JE, Seal S, Stavolone L. Proposal 2017.013D.A.v1.Ortervirales. Create the
48 order *Ortervirales* comprising 5 families of reverse-transcribing viruses
49 [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.013D.A.v1.Ortervirales.zip)
50 [17/2017.013D.A.v1.Ortervirales.zip](http://ictv.global/proposals-17/2017.013D.A.v1.Ortervirales.zip)
- 51 39. Harrach B (harrach.balazs@agrar.mta.hu), Böszörményi KP, Benkő M. Proposal

- 2017.014D.A.v1.Adenoviridae_8sp. Create 8 species in the family *Adenoviridae*
http://ictv.global/proposals-17/2017.014D.A.v1.Adenoviridae_8sp.zip
40. Magnius L (lars.magnius@gmail.com), Norder H. Proposal
2017.015D.A.v1.Hepadnaviridae_2sp. Create 2 species to be unassigned in the family
Hepadnaviridae http://ictv.global/proposals-17/2017.015D.A.v1.Hepadnaviridae_2sp.zip
41. Harrach B (harrach.balazs@agrar.mta.hu), Benkő M. Proposal
2017.016D.A.v1.Adenoviridae_4sp. In the family *Adenoviridae*, create 1 species in
genus *Atadenovirus* and 3 species in genus *Mastadenovirus*
http://ictv.global/proposals-17/2017.016D.A.v1.Adenoviridae_4sp.zip
42. Krupovic M (krupovic@pasteur.fr), Kazlauskas D, Varsani A. Proposal
2017.001F.A.v1.Bacilladnaviridae. Create two new genera within a new family
Bacilladnaviridae; also rename an existing genus and move from unassigned to the
new family <http://ictv.global/proposals-17/2017.001F.A.v1.Bacilladnaviridae.zip>
43. Siddell S (stuart.siddell@bristol.ac.uk). Proposal 2017.001G.A.v2.43spren. Change the
names of 43 virus species to accord with ICVCN Code, Section 3-II, Rule 3.13
regarding the use of diacritical and other proscribed characters in taxon names.
<http://ictv.global/proposals-17/2017.001G.A.v2.43spren.zip>
44. Kropinski AM (phage.canada@gmail.com), Kuhn JH (kuhnjens@mail.nih.gov) and 133
others. Proposal 2017.003G.A.v2.ICVCN_Rule_3.11_Change. Change ICVCN Rule
3.11 to permit, with limitations, the names of people to be recognised in names of taxa
http://ictv.global/proposals-17/2017.003G.A.v2.ICVCN_Rule_3.11_Change.zip
45. Hepojoki J (jussi.hepojoki@uzh.ch, jussi.hepojoki@helsinki.fi), Salmenperä P, Sironen
T, Hetzel U, Korzyukov Y, Kipar A, Vapalahti O, Maes P, Buchmeier MJ, Charrel R,
Clegg CS, de la Torre C, DeRisi JL, Emonet S, Gonzalez JP, Kuhn JH, Lukashevich
IS, Peters CJ, Radoshitzky SR, Romanowski V, Salvato MS, Stenglein MD . Proposal
2017.001M.A.v1.Hartmanivirus. Create genus *Hartmanivirus* in the family
Arenaviridae <http://ictv.global/proposals-17/2017.001M.A.v1.Hartmanivirus.zip>
46. Buchmeier MJ, Charrel R, Clegg CS, de la Torre C, DeRisi JL, Emonet S, Gonzalez JP,
Kuhn JH (kuhnjens@mail.nih.gov), Lukashevich IS, Peters CJ, Radoshitzky SR,
Romanowski V, Salvato MS, Stenglein MD . Proposal
2017.002M.A.v3.Mammarenavirus_sp. Create species *Ryukyu mammarenavirus* in
genus *Mammarenavirus*, family *Arenaviridae* http://ictv.global/proposals-17/2017.002M.A.v3.Mammarenavirus_sp.zip
47. Ng TFF, Schneider BS, Gillis A, LeBreton M, Kondov NO, Coffey L, Wolfe ND,
Delwart E, Buchmeier MJ, Charrel R, Clegg CS, de la Torre C, DeRisi JL, Emonet S,
Gonzalez JP, Kuhn JH (kuhnjens@mail.nih.gov), Lukashevich IS, Peters CJ,
Radoshitzky SR, Romanowski V, Salvato MS, Stenglein MD. Proposal
2017.003M.A.v1.Mammarenavirus_sp. Create species *Souris mammarenavirus* in
genus *Mammarenavirus*, family *Arenaviridae* http://ictv.global/proposals-17/2017.003M.A.v1.Mammarenavirus_sp.zip
48. Rubbenstroth D (dennis.rubbenstroth@uniklinik-freiburg.de), Briese T, Dürrwald R,
Horie M, Kuhn JH, Nowotny N, Payne S, Schwemmle M, Tomonaga K. Proposal
2017.004M.A.v1.Bornaviridae_ren. Change the name of genus *Bornavirus* (family
Bornaviridae, order *Mononegavirales*) to *Orthobornavirus* and the names of all its
constituent species likewise http://ictv.global/proposals-17/2017.004M.A.v1.Bornaviridae_ren.zip
49. Kuhn JH (kuhnjens@mail.nih.gov), Stenglein M, Wellehan J, Rubbenstroth D, Briese T,

- 1 Dürwald R, Horie M, Nowotny N, Payne S, Schwemmler M, Tomonaga K, Hyndman
2 T . Proposal 2017.005M.A.v1.Carbovirus. Create genus *Carbovirus* in family
3 *Bornaviridae* <http://ictv.global/proposals-17/2017.005M.A.v1.Carbovirus.zip>
- 4 50. Jansen van Vuren P, Wiley MR, Palacios G, Storm N, Kuhn JH, Markotter W, Birkhead
5 M, Kemp A, Paweska JT (januszp@nicd.ac.za). Proposal
6 2017.007M.A.v1.Orthobunyavirus_sp. Create a species in genus *Orthobunyavirus*,
7 family *Peribunyaviridae*, order *Bunyavirales* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.007M.A.v1.Orthobunyavirus_sp.zip)
8 [17/2017.007M.A.v1.Orthobunyavirus_sp.zip](http://ictv.global/proposals-17/2017.007M.A.v1.Orthobunyavirus_sp.zip)
- 9 51. Palacios G, Alkhovsky SV, Kuhn JH (kuhnjens@mail.nih.gov). Proposal
10 2017.008M.A.v1.Orthonaivirus_2sp1ren. Create 2 species in genus *Orthonaivirus*
11 (family *Nairoviridae*, order *Bunyavirales*) and rename one species
12 http://ictv.global/proposals-17/2017.008M.A.v1.Orthonaivirus_2sp1ren.zip
- 13 52. Goldberg TL (tony.goldberg@wisc.edu), Bennett AJ, Kityo R, Kuhn JH, Chapman CA.
14 Proposal 2017.009M.A.v1.Ledantavirus_sp. Create a species in genus *Ledantavirus*,
15 family *Rhabdoviridae*, order *Mononegavirales* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.009M.A.v1.Ledantavirus_sp.zip)
16 [17/2017.009M.A.v1.Ledantavirus_sp.zip](http://ictv.global/proposals-17/2017.009M.A.v1.Ledantavirus_sp.zip)
- 17 53. Kuhn JH, Verdugo C, Ng TFF, Mor SK, Choi K-S, Thomazelli LM, Ramírez VMN
18 (victorneira@u.uchile.cl). Proposal 2017.010M.A.v2.Avulavirus_6sp. Create 6
19 species in genus *Avulavirus*, family *Paramyxoviridae*, order *Mononegavirales*
20 http://ictv.global/proposals-17/2017.010M.A.v2.Avulavirus_6sp.zip
- 21 54. Smith GJD, Bahl J, Donis R, Hongo S, Kochs G, Lamb R, McCauley J, Palese P, Perez
22 D, Presti R, Rimstad E. Proposal 2017.011M.A.v2.Orthomyxoviridae_ren. Change
23 the names of 4 genera and 5 species in the family *Orthomyxoviridae*
24 http://ictv.global/proposals-17/2017.011M.A.v2.Orthomyxoviridae_ren.zip
- 25 55. Marston DA (Denise.Marston@apha.gsi.gov.uk), Mueller T, Freuling C, Banyard AC,
26 Fooks AR. Proposal 2017.013M.A.v1.Lyssavirus_sp. Create a species in genus
27 *Lyssavirus*, family *Rhabdoviridae*, order *Mononegavirales*
28 http://ictv.global/proposals-17/2017.013M.A.v1.Lyssavirus_sp.zip
- 29 56. Marston DA (Denise.Marston@apha.gsi.gov.uk), Echevarria J, Aréchiga N, Vázquez S,
30 Mueller T, Freuling C, Banyard AC, Fooks AR. Proposal
31 2017.014M.A.v1.Lyssavirus_sp. Create a species in genus *Lyssavirus*, family
32 *Rhabdoviridae*, order *Mononegavirales* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.014M.A.v1.Lyssavirus_sp.zip)
33 [17/2017.014M.A.v1.Lyssavirus_sp.zip](http://ictv.global/proposals-17/2017.014M.A.v1.Lyssavirus_sp.zip)
- 34 57. Hepojoki J, Sironen T, Bao Y, Maes P, Buchmeier MJ, Charrel R, Clegg CS, de la Torre
35 C, DeRisi JL, Emonet S, Gonzalez JP, Kuhn JH (kuhnjens@mail.nih.gov),
36 Lukashchikov IS, Peters CJ, Radoshitzky SR, Romanowski V, Salvato MS, Stenglein
37 MD . Proposal 2017.015M.A.v1.Reptarenavirus_2sp3ren. In the genus
38 *Reptarenavirus* (family *Arenaviridae*), create two species and rename three species
39 http://ictv.global/proposals-17/2017.015M.A.v1.Reptarenavirus_2sp3ren.zip
- 40 58. Jansen van Vuren P, Wiley MR, Palacios G, Storm N, McCulloch S, Markotter W,
41 Birkhead M, Kemp A, Paweska JT (januszp@nicd.ac.za). Proposal
42 2017.018M.A.v1.Orthoreovirus_sp. Create a species in the genus *Orthoreovirus*,
43 subfamily *Spinareovirinae*, family *Reoviridae* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.018M.A.v1.Orthoreovirus_sp.zip)
44 [17/2017.018M.A.v1.Orthoreovirus_sp.zip](http://ictv.global/proposals-17/2017.018M.A.v1.Orthoreovirus_sp.zip)
- 45 59. Wiley MR, Prieto, K, Blasdel KR, Cai Y, Campos Lawson C, Walker PJ, Chiu CY,
46 Palacios G, Kuhn JH (kuhnjens@mail.nih.gov). Proposal
47 2017.019M.A.v1.Tibrovirus_sp. Create a species in the genus *Tibrovirus*, family
48 *Rhabdoviridae*, order *Mononegavirales* [http://ictv.global/proposals-](http://ictv.global/proposals-17/2017.019M.A.v1.Tibrovirus_sp.zip)
49 [17/2017.019M.A.v1.Tibrovirus_sp.zip](http://ictv.global/proposals-17/2017.019M.A.v1.Tibrovirus_sp.zip)

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60. Wylie S (s.wylie@murdoch.edu.au), Adams MJ, Chalam C, Kreuze JF, Lopez-Moya JJ, Ohshima K, Praveen S, Rabenstein F, Wang A, Zerbini FM. Proposal 2017.001P.A.v2.Potyviridae_2gen. Create 2 genera, *Roymovirus* and *Bevemovirus*, in the family *Potyviridae* http://ictv.global/proposals-17/2017.001P.A.v2.Potyviridae_2gen.zip
61. García ML, Dal Bó E, da Graça JV, Gago-Zachert S, Hammond J, Moreno P, Natsuaki T, Pallás V, Navarro JA, Reyes CA, Luna GR, Sasaya T, Tzanetakis IE, Vaira AM, Verbeek M, Kuhn JH (kuhnjens@mail.nih.gov). Proposal 2017.002P.A.v2.Ophioviridae_ren. Change the name of the family *Ophioviridae* to *Aspiviridae* and adopt nonlatinised binomial names for its constituent species http://ictv.global/proposals-17/2017.002P.A.v2.Ophioviridae_ren.zip
62. Sõmera M (merike.somera@ttu.ee), Truve E, Hebrard E. Proposal 2017.003P.A.v2.Solemoviridae. Create family *Sobemoviridae*, combining the *Sobemovirus* and *Polemovirus* genera <http://ictv.global/proposals-17/2017.003P.A.v2.Solemoviridae.zip>
63. Briddon R (rob.briddon@gmail.com), Varsani A (arvind.varsani@asu.edu) Proposal 2017.004P.A.v4.Alphasatellitidae. Create the *Alphasatellitidae*, a family of satellites comprising 2 new subfamilies and 11 new genera <http://ictv.global/proposals-17/2017.004P.A.v4.Alphasatellitidae.zip>
64. Thompson JR (jrt36@cornell.edu), Karasev AV, Sanfacon H, Dasgupta I, Tzanetakis I, Petrzik K, Fuchs M, Yoshikawa N, van der Vlugt R, Wetzel T, Iwanami T. Proposal 2017.005P.A.v2.Secoviridae_5sp. In the family *Secoviridae* create two species in genus *Nepovirus*, two species in genus *Fabavirus* and one unassigned species http://ictv.global/proposals-17/2017.005P.A.v2.Secoviridae_5sp.zip
65. Wylie S (s.wylie@murdoch.edu.au), Adams MJ, Chalam C, Kreuze JF, Lopez-Moya JJ, Ohshima K, Praveen S, Rabenstein F, Wang A, Zerbini FM. Proposal 2017.007P.A.v1.Potyviridae_9sp. Create 9 species in the family *Potyviridae* http://ictv.global/proposals-17/2017.007P.A.v1.Potyviridae_9sp.zip
66. Varsani A (arvind.varsani@asu.edu), Martin DP. Proposal 2017.008P.A.v2.Mastrevirus_5sp. Create five species in the genus *Mastrevirus*, family *Geminiviridae* http://ictv.global/proposals-17/2017.008P.A.v2.Mastrevirus_5sp.zip
67. Varsani A (arvind.varsani@asu.edu), Martin DP. Proposal 2017.009P.A.v1.Turncurtovirus_sp. Create a species in the genus *Turncurtovirus*, family *Geminiviridae* http://ictv.global/proposals-17/2017.009P.A.v1.Turncurtovirus_sp.zip
68. Zerbini FM (zerbini@ufv.br), Varsani A, Navas-Castillo J, Moriones E, Martin D, Briddon R. Proposal 2017.010P.A.v1.Begomovirus_66sp. Create 66 species in the genus *Begomovirus*, family *Geminiviridae* http://ictv.global/proposals-17/2017.010P.A.v1.Begomovirus_66sp.zip
69. Zerbini FM (zerbini@ufv.br). Proposal 2017.011P.A.v1.Gemini_sp_ren. Correct the names of three species in the family *Geminiviridae* and one species in the *Tolecutsatellitidae* http://ictv.global/proposals-17/2017.011P.A.v1.Gemini_sp_ren.zip
70. Sabanadzovic S (ss501@msstate.edu), Valverde RA, Okada R. Proposal 2017.012P.A.v1.Endornaviridae_2sp. Create two species in the family *Endornaviridae* http://ictv.global/proposals-17/2017.012P.A.v1.Endornaviridae_2sp.zip

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64
65
71. Bujarski J, Gallitelli D, Reddy MK, Garcia-Arenal F, Wang A, Scott SW (sscott@clemsun.edu). Proposal 2017.013P.A.v2.Ilarvirus_3sp. Create 3 species in the genus *Ilarvirus*, family *Bromoviridae* http://ictv.global/proposals-17/2017.013P.A.v2.Ilarvirus_3sp.zip
 72. Matthiesen R, Miller WA (wamiller@iastate.edu). Proposal 2017.014P.A.v1.Polerovirus_sp. Create species, *Maize yellow mosaic virus*, in the genus *Polerovirus*, family *Luteoviridae* http://ictv.global/proposals-17/2017.014P.A.v1.Polerovirus_sp.zip
 73. Ibaba JD (davy_i@hotmail.com), Gubba A, Laing MD. Proposal 2017.015P.A.v1.Polerovirus_sp. Create species, *Pepo aphid-borne yellows virus*, in the genus *Polerovirus*, family *Luteoviridae* http://ictv.global/proposals-17/2017.015P.A.v1.Polerovirus_sp.zip
 74. Geering A, Bömer M, Turaki AA, Seal SE, Teycheney P-Y (teycheney@cirad.fr). Proposal 2017.017P.A.v2.Badnavirus_6sp. Create 6 species in the genus *Badnavirus*, family *Caulimoviridae* http://ictv.global/proposals-17/2017.017P.A.v2.Badnavirus_6sp.zip
 75. Fuchs M (mf13@cornell.edu), Agranovsky AA, Bar-Joseph M, Candresse T, Dolja V, Livieratos I, Martelli GP, Maree H, Melzer MJ, Menzel W, Minafra A, Sabanadzovic S. Proposal 2017.018P.A.v1.Ampelovirus_sp. Create a species in the genus *Ampelovirus*, family *Closteroviridae* http://ictv.global/proposals-17/2017.018P.A.v1.Ampelovirus_sp.zip
 76. Sabanadzovic S (ss501@msstate.edu), Edwards M, Hammond R, Haenni A-L, Martelli GP, Dreher T. Proposal 2017.019P.A.v1.Marafivirus_2sp. Create two species in the genus *Marafivirus*, family *Tymoviridae* http://ictv.global/proposals-17/2017.019P.A.v1.Marafivirus_2sp.zip
 77. Kreuze J (j.kreuze@cgiar.org), Adams MJ, Candresse T, Hammond J, Menzel W, Pearson M, Saldarelli P, Vaira A, Yoshikawa N. Proposal 2017.020P.A.v1.Deltaflexiviridae. Create 3 species in a new genus, *Deltaflexivirus*, in a new family, *Deltaflexiviridae*, in the order *Tymovirales* <http://ictv.global/proposals-17/2017.020P.A.v1.Deltaflexiviridae.zip>
 78. Kreuze J (j.kreuze@cgiar.org), Adams MJ, Candresse T, Hammond J, Menzel W, Pearson M, Saldarelli P, Vaira AM, Yoshikawa N. Proposal 2017.021P.A.v3.Alpha-Betaflexiviridae_14sp. Create 14 new species in the *Alphaflexiviridae* and *Betaflexiviridae* families and assign the unassigned species *Blackberry virus E* to the genus *Allexivirus* http://ictv.global/proposals-17/2017.021P.A.v3.Alpha-Betaflexiviridae_14sp.zip
 79. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P, Skern T, Stanway G, Yamashita T. Proposal 2017.002S.A.v1.Aalivirus. Create 1 new species (*Aalivirus A*) in new genus (*Aalivirus*) <http://ictv.global/proposals-17/2017.002S.A.v1.Aalivirus.zip>
 80. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P, Skern T, Stanway G, Yamashita T. Proposal 2017.003S.A.v1.Bopivirus. Create 1 new species (*Bopivirus A*) in a new genus (*Bopivirus*) <http://ictv.global/proposals-17/2017.003S.A.v1.Bopivirus.zip>
 81. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P,

- Skern T, Stanway G, Yamashita T. Proposal 2017.004S.A.v2.Crohivirus. Create 2 new species (*Crohivirus A*, *Crohivirus B*) in a new genus (*Crohivirus*) <http://ictv.global/proposals-17/2017.004S.A.v2.Crohivirus.zip>
82. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P, Skern T, Stanway G, Yamashita T. Proposal 2017.005S.A.v1.Enterovirus_2sp. Create 2 new species, *Enterovirus K*, *Enterovirus L* in the genus *Enterovirus* http://ictv.global/proposals-17/2017.005S.A.v1.Enterovirus_2sp.zip
83. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P, Skern T, Stanway G, Yamashita T. Proposal 2017.006S.A.v2.Kunsagivirus_2sp. Create 2 new species (*Kunsagivirus B* & *Kunsagivirus C*) in the genus *Kunsagivirus* http://ictv.global/proposals-17/2017.006S.A.v2.Kunsagivirus_2sp.zip
84. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P, Skern T, Stanway G, Yamashita T. Proposal 2017.007S.A.v2.Megrivirus_4sp. Change the name of species *Melegrivirus A* to *Megrivirus A* and create 4 new species (*Megrivirus B*, *C*, *D*, *E*) in the genus *Megrivirus* http://ictv.global/proposals-17/2017.007S.A.v2.Megrivirus_4sp.zip
85. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P, Skern T, Stanway G, Yamashita T. Proposal 2017.008S.A.v1.Orivirus. Create 1 new species (*Orivirus A*) in a new genus (*Orivirus*) <http://ictv.global/proposals-17/2017.008S.A.v1.Orivirus.zip>
86. Zell R (roland.zell@med.uni-jena.de), Delwart E, Gorbalenya AE, Hovi T, King AMQ, Knowles NJ, Lindberg AM, Pallansch MA, Palmenberg AC, Reuter G, Simmonds P, Skern T, Stanway G, Yamashita T. Proposal 2017.009S.A.v1.Shanbavirus. Create 1 new species (*Shanbavirus A*) in a new genus (*Shanbavirus*) <http://ictv.global/proposals-17/2017.009S.A.v1.Shanbavirus.zip>
87. Smith DB, Meyers G, Bukh J, Gould EA, Monath T, Muerhoff AS, Pletnev A, Rico-Hesse R, Stapleton JT, Simmonds P and Becher P (paul.becher@tiho-hannover.de). Proposal 2017.010S.A.v1.Pestivirus_7sp4spren. Rename four species and create seven species in the genus *Pestivirus*, family *Flaviviridae* http://ictv.global/proposals-17/2017.010S.A.v1.Pestivirus_7sp4spren.zip
88. Olendraitė I, Lukhovitskaya NI, Porter SD, Valles SM, Firth AE (aef24@cam.ac.uk). Proposal 2017.011S.A.v2.Polycipiviridae. In the order *Picornavirales*, create family *Polycipiviridae* comprising three genera, *Sopolycivirus*, *Hupolycivirus* and *Chipolycivirus* <http://ictv.global/proposals-17/2017.011S.A.v2.Polycipiviridae.zip>

Table 1. Summary of taxonomic changes approved in February 2018

Change	Orders	Families	Subfamilies	Genera	Species
new	1	9	11	69	451
moved	0	4	2	75	341
moved/renamed	0	0	0	1	18
abolished	0	0	0	1 ¹	2
Totals ²	9	131	46	803	4853

¹ Existing genus (*Tectivirus*) split into two new genera, resulting in a net gain of one genus

² Total numbers of taxa now recognized and shown in the ICTV Master Species List

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Table 2. Taxonomic changes approved in February 2018. Names of newly created taxa are in bold italic type. Names of existing taxa that have been moved or renamed are shown in plain italic type.

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Order	Family	Subfamily (blank = unassigned)	Genus	Species	taxonomic change	Ref
<i>Caudovirales</i>	<i>Ackermannviridae</i>				new family	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Aglimvirinae</i>			new subfamily	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Aglimvirinae</i>	<i>Ag3virus</i>		new genus	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Aglimvirinae</i>	<i>Ag3virus</i>	<i>Shigella virus AG3</i>	move species to be type species (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Aglimvirinae</i>	<i>Ag3virus</i>	<i>Salmonella virus SKML39</i>	new species	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Aglimvirinae</i>	<i>Limestonevirus</i>		new genus	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Aglimvirinae</i>	<i>Limestonevirus</i>	<i>Dickeya virus Limestone</i>	move species to be type species (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Aglimvirinae</i>	<i>Limestonevirus</i>	<i>Dickeya virus RC2014</i>	new species	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>			new subfamily	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>		new genus	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Escherichia virus CBA120</i>	move species to be type species (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Salmonella virus SFP10</i>	move species (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Salmonella virus GG32</i>	new species	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Escherichia virus PhaxI</i>	move species (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Salmonella virus Det7</i>	move species (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Salmonella virus SH19</i>	move species (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Salmonella virus 38</i>	new species	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Salmonella virus PM10</i>	new species	[1]
<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Cba120virus</i>	<i>Salmonella virus SJ3</i>	move species	[1]

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22	<i>Caudovirales</i>	<i>Ackermannviridae</i>	<i>Cvimirinae</i>	<i>Vi1virus</i>	move genus and constituent species: <i>Salmonella virus Vi1</i> , <i>Escherichia virus ECML4</i> , <i>Salmonella virus SJ2</i> , <i>Salmonella virus Marshall</i> , <i>Salmonella virus Maynard</i> , <i>Salmonella virus STML131</i> (previous position: <i>Caudovirales/Myoviridae/Vi1virus</i>)	[1]
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26	<i>Caudovirales</i>	<i>Ackermannviridae</i>		unassigned	<i>Erwinia virus Ea2809</i>	new species unassigned in family [1]
27						
28	<i>Caudovirales</i>	<i>Ackermannviridae</i>		unassigned	<i>Serratia virus MAMI</i>	new species unassigned in family [1]
29	<i>Caudovirales</i>	<i>Ackermannviridae</i>		unassigned	<i>Serratia virus IME250</i>	new species unassigned in family [1]
30						
31	<i>Caudovirales</i>	<i>Ackermannviridae</i>		unassigned	<i>Klebsiella virus 0507KN21</i>	new species unassigned in family [1]
32						
33	unassigned	<i>Portogloboviridae</i>				new family [2]
34	unassigned	<i>Portogloboviridae</i>		<i>Alphaportoglobovirus</i>		new genus [2]
35						
36	unassigned	<i>Portogloboviridae</i>		<i>Alphaportoglobovirus</i>	<i>Sulfolobus alphaportoglobovirus 1</i>	new (type) species [2]
37						
38	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Anatolevirus</i>		new genus [3]
39						
40	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Anatolevirus</i>	<i>Propionibacterium virus Anatole</i>	new (type) species [3]
41						
42	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Anatolevirus</i>	<i>Propionibacterium virus B3</i>	new species [3]
43						
44	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Chebruvirinae</i>			new subfamily [4]
45						
46	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Chebruvirinae</i>	<i>Che9cvirus</i>		move genus (with constituent type species: <i>Mycobacterium virus Che9c</i>) [4]
47						
48	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Chebruvirinae</i>	<i>Che9cvirus</i>	<i>Mycobacterium virus Sbash</i>	new species [4]
49						
50	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Chebruvirinae</i>	<i>Brujitavirus</i>		new genus [4]
51						
52	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Chebruvirinae</i>	<i>Brujitavirus</i>	<i>Mycobacterium virus Brujita</i>	move species to be type species (previous position: <i>Caudovirales/Siphoviridae/Che9cvirus</i>) [4]
53						
54	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Chebruvirinae</i>	<i>Brujitavirus</i>	<i>Mycobacterium virus Babsiella</i>	move species (previous position: <i>Caudovirales/Siphoviridae/Che9cvirus</i>) [4]
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57	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Attisvirus</i>		new genus [5]
58	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Attisvirus</i>	<i>Gordonia virus Attis</i>	new (type) species [5]
59						
60	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Doucettevirus</i>		new genus [6]
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22	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Doucettevirus</i>	<i>Propionibacterium virus Doucette</i>	new (type) species	[6]	
23							
24	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Doucettevirus</i>	<i>Propionibacterium virus B22</i>	new species	[6]	
25							
26	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Doucettevirus</i>	<i>Propionibacterium virus E6</i>	new species	[6]	
27							
28							
29	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Doucettevirus</i>	<i>Propionibacterium virus G4</i>	new species	[6]	
30							
31	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Dclasvirinae</i>		new subfamily	[7]	
32							
33	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Dclasvirinae</i>	<i>Plotvirus</i>	new genus	[7]	
34	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Dclasvirinae</i>	<i>Plotvirus</i>	<i>Mycobacterium virus Plot</i>	new (type) species	[7]
35							
36	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Dclasvirinae</i>	<i>Hawkeyevirus</i>	new genus	[7]	
37	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Dclasvirinae</i>	<i>Hawkeyevirus</i>	<i>Mycobacterium virus Hawkeye</i>	new (type) species	[7]
38							
39	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	new genus	[8]	
40							
41	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK97</i>	move species to be type species (previous position: <i>Caudovirales/Siphoviridae/Lambdavirus</i>)	[8]
42							
43	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK022</i>	move species (previous position: <i>Caudovirales/Siphoviridae/Lambdavirus</i>)	[8]
44							
45	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus mEpX2</i>	new species	[8]
46							
47	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK542</i>	new species	[8]
48	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK633</i>	new species	[8]
49							
50	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK106</i>	new species	[8]
51	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus mEp234</i>	new species	[8]
52							
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54	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK446</i>	new species	[8]
55	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK544</i>	new species	[8]
56							
57	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus mEpX1</i>	new species	[8]
58	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Hk97virus</i>	<i>Escherichia virus HK75</i>	new species	[8]
59	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Mccleskeyvirinae</i>		new subfamily	[9]	
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22	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Una4virus</i>	new genus	[9]
23	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Una4virus</i>	<i>Leuconostoc virus IA4</i>	new (type) species [9]
24						
25	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Una4virus</i>	<i>Leuconostoc virus Ln9</i>	new species [9]
26	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Una4virus</i>	<i>Leuconostoc virus Ln8</i>	new species [9]
27	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Una4virus</i>	<i>Leuconostoc virus LN25</i>	new species [9]
28						
29	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Una4virus</i>	<i>Leuconostoc virus LN34</i>	new species [9]
30	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Una4virus</i>	<i>Leuconostoc virus</i>	new species [9]
31					<i>LNTR3</i>	
32						
33	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Lmd1virus</i>		new genus [9]
34	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Lmd1virus</i>	<i>Leuconostoc virus P793</i>	new species [9]
35						
36	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Lmd1virus</i>	<i>Leuconostoc virus LN12</i>	new species [9]
37	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Lmd1virus</i>	<i>Leuconostoc virus LN03</i>	new species [9]
38	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Lmd1virus</i>	<i>Leuconostoc virus LN04</i>	new species [9]
39						
40	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Lmd1virus</i>	<i>Leuconostoc virus LN6B</i>	new species [9]
41	Caudovirales	Siphoviridae	<i>Mccleskeyvirinae</i>	<i>Lmd1virus</i>	<i>Leuconostoc virus Lmd1</i>	new (type) species [9]
42						
43	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>			new subfamily [10]
44	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>	<i>Redivirus</i>		new genus [10]
45						
46	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>	<i>Redivirus</i>	<i>Mycobacterium virus Redi</i>	move species to be type species (previous position: <i>Caudovirales/Siphoviridae/Charlievirus</i>) [10]
47						
48	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>	<i>Redivirus</i>	<i>Mycobacterium virus Panchino</i>	new species [10]
49						
50	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>	<i>Redivirus</i>	<i>Mycobacterium virus Skinnyp</i>	new species [10]
51						
52						
53	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>	<i>Redivirus</i>	<i>Mycobacterium virus Phrann</i>	new species [10]
54						
55	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>	<i>Charlievirus</i>		move genus (with constituent species: <i>Mycobacterium virus Charlie</i>) [10]
56						
57	Caudovirales	Siphoviridae	<i>Nclasvirinae</i>	<i>Charlievirus</i>	<i>Mycobacterium virus Pipsqueaks</i>	new species [10]
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22	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nclasvirinae</i>	<i>Charlievirus</i>	<i>Mycobacterium virus Xeno</i>	new species [10]
23						
24	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nclasvirinae</i>	<i>Buttersvirus</i>		new genus [10]
25						
26	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nclasvirinae</i>	<i>Buttersvirus</i>	<i>Mycobacterium virus Butters</i>	new (type) species [10]
27						
28	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nclasvirinae</i>	<i>Buttersvirus</i>	<i>Mycobacterium virus Michelle</i>	new species [10]
29						
30	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>			new subfamily [11]
31						
32	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>	<i>Nymphadoravirus</i>		new genus [11]
33	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>	<i>Nymphadoravirus</i>	<i>Gorrdonia virus Nymphadora</i>	new (type) species [11]
34						
35	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>	<i>Nymphadoravirus</i>	<i>Gordonia virus Kita</i>	new species [11]
36						
37	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>	<i>Nymphadoravirus</i>	<i>Gordonia virus Zirinka</i>	new species [11]
38	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>	<i>Baxtervirus</i>		new genus [11]
39						
40	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>	<i>Baxtervirus</i>	<i>Gordonia virus BaxterFox</i>	new (type) species [11]
41						
42	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Nymbaxtervirinae</i>	<i>Baxtervirus</i>	<i>Gordonia virus Yeezy</i>	new species [11]
43						
44	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Wizardvirus</i>		new genus [12]
45	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Wizardvirus</i>	<i>Gordonia virus Wizard</i>	new (type) species [12]
46						
47	<i>Caudovirales</i>	<i>Siphoviridae</i>		<i>Wizardvirus</i>	<i>Gordonia virus Twister6</i>	new species [12]
48	unassigned	<i>Tectiviridae</i>		<i>Alphatectivirus</i>		rename genus (previous name: <i>Tectivirus</i>) [13]
49	unassigned	<i>Tectiviridae</i>		<i>Alphatectivirus</i>	<i>Pseudomonas virus PRD1</i>	rename species (previous name: <i>Salmonella virus PRD1</i>) [13]
50						
51	unassigned	<i>Tectiviridae</i>		<i>Alphatectivirus</i>	<i>Pseudomonas virus PR4</i>	new species [13]
52	unassigned	<i>Tectiviridae</i>		<i>Betatectivirus</i>		new genus [13]
53						
54	unassigned	<i>Tectiviridae</i>		<i>Betatectivirus</i>	<i>Bacillus virus Bam35</i>	move species to be type species (previous position: <i>Tectiviridae/Tectivirus</i>) [13]
55						
56	unassigned	<i>Tectiviridae</i>		<i>Betatectivirus</i>	<i>Bacillus virus GIL16</i>	new species [13]
57						
58	unassigned	<i>Tectiviridae</i>		<i>Betatectivirus</i>	<i>Bacillus virus AP50</i>	move species [13]
59	unassigned	<i>Tectiviridae</i>		<i>Betatectivirus</i>	<i>Bacillus virus Wip1</i>	new species [13]
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22				abolish species <i>Thermus virus P37-14</i> (previous position: <i>Tectiviridae/Tectivirus</i>)	[13]
23					
24				abolish species <i>Alicyclobacillus virus NS11</i> (previous position: unassigned/ <i>Tectivirus</i>)	[13]
25					
26	unassigned	<i>Cystoviridae</i>	<i>Cystovirus</i>	<i>Pseudomonas virus phi8</i>	new species [14]
27					
28	unassigned	<i>Cystoviridae</i>	<i>Cystovirus</i>	<i>Pseudomonas virus phi12</i>	new species [14]
29					
30	unassigned	<i>Cystoviridae</i>	<i>Cystovirus</i>	<i>Pseudomonas virus phi13</i>	new species [14]
31					
32	unassigned	<i>Cystoviridae</i>	<i>Cystovirus</i>	<i>Pseudomonas virus phi2954</i>	new species [14]
33					
34	unassigned	<i>Cystoviridae</i>	<i>Cystovirus</i>	<i>Pseudomonas virus phiNN</i>	new species [14]
35					
36	unassigned	<i>Cystoviridae</i>	<i>Cystovirus</i>	<i>Pseudomonas virus phiYY</i>	new species [14]
37					
38	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Dfl12virus</i>		new genus [15]
39	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Dfl12virus</i>	<i>Dinoroseobacter virus DFL12</i>	new (type) species [15]
40					
41	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Sp58virus</i>		new genus [16]
42					
43	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Sp58virus</i>	<i>Salmonella virus FSL SP-058</i>	new (type) species [16]
44					
45	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Sp58virus</i>	<i>Salmonella virus FSL SP-076</i>	new species [16]
46					
47	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Sp58virus</i>	<i>Escherichia virus Pollock</i>	new species [16]
48					
49	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Svunavirus</i>		new genus [17]
50					
51	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Svunavirus</i>	<i>Geobacillus virus GBSV1</i>	new (type) species [17]
52	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Svunavirus</i>	<i>Bacillus virus 1</i>	new species [17]
53					
54	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Tp84virus</i>		new genus [18]
55	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Tp84virus</i>	<i>Geobacillus virus Tp84</i>	new (type) species [18]
56					
57	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Eah2virus</i>		new genus [19]
58	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Eah2virus</i>	<i>Erwinia virus EaH2</i>	new (type) species [19]
59	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Eah2virus</i>	<i>Erwinia virus Asesino</i>	new species [19]
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22	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Jwalphavirus</i>		new genus [20]
23	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Jwalphavirus</i>	<i>Achromobacter virus JWAlpha</i>	new (type) species [20]
24					
25	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>Jwalphavirus</i>	<i>Achromobacter virus Axp3</i>	new species [20]
26					
27					
28	<i>Caudovirales</i>	<i>Podoviridae</i>	<i>P22virus</i>	<i>Salmonella virus BTP1</i>	new species [21]
29	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Machinavirus</i>		new genus [22]
30					
31	<i>Caudovirales</i>	<i>Myoviridae</i>	<i>Machinavirus</i>	<i>Erwinia virus Machina</i>	new (type) species [22]
32	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Trigintaduovirus</i>		new genus [23]
33					
34	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Trigintaduovirus</i>	<i>Mycobacterium virus 32HC</i>	new (type) species [23]
35					
36	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Pfr1virus</i>		new genus [24]
37	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Pfr1virus</i>	<i>Propionibacterium virus PFR1</i>	new (type) species [24]
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40	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Lambdavirus</i>	<i>Escherichia virus DE3</i>	new species [25]
41	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Lambdavirus</i>	<i>Escherichia virus HK629</i>	new species [25]
42					
43	<i>Caudovirales</i>	<i>Siphoviridae</i>	<i>Lambdavirus</i>	<i>Escherichia virus HK630</i>	new species [25]
44	unassigned	<i>Belpaoviridae</i>			new family [26]
45					
46	unassigned	<i>Belpaoviridae</i>	<i>Semotivirus</i>		move genus (with constituent species: <i>Anopheles gambiae</i> <i>Moose virus</i> , <i>Ascaris lumbricoides</i> <i>Tas virus</i> , <i>Bombyx mori</i> <i>Pao virus</i> , <i>Caenorhabditis elegans</i> <i>Cer13 virus</i> , <i>Drosophila melanogaster</i> <i>Bel virus</i> , <i>Drosophila melanogaster</i> <i>Roo virus</i> , <i>Drosophila simulans</i> <i>Ninja virus</i> , <i>Takifugu rubripes</i> <i>Suzu virus</i>) [26]
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51	unassigned	<i>Belpaoviridae</i>	<i>Semotivirus</i>	<i>Takifugu rubripes Suzu virus</i>	rename species (previous name: <i>Fugu rubripes Suzu virus</i>) [26]
52					
53	unassigned	<i>Belpaoviridae</i>	<i>Semotivirus</i>	<i>Drosophila semotivirus Max</i>	new species [26]
54					
55					
56	unassigned	<i>Belpaoviridae</i>	<i>Semotivirus</i>	<i>Antheraea semotivirus Tamy</i>	new species [26]
57					
58	unassigned	<i>Belpaoviridae</i>	<i>Semotivirus</i>	<i>Schistosoma semotivirus Sinbad</i>	new species [26]
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22	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Amdoparvovirus</i>	<i>Carnivore amdoparvovirus 3</i>	new species [27]
23						
24	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Amdoparvovirus</i>	<i>Carnivore amdoparvovirus 4</i>	new species [27]
25						
26	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Carnivore bocaparvovirus 4</i>	new species [28]
27						
28	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Carnivore bocaparvovirus 5</i>	new species [28]
29						
30						
31	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Carnivore bocaparvovirus 6</i>	new species [28]
32						
33	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Chiropteran bocaparvovirus 1</i>	new species [28]
34						
35	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Chiropteran bocaparvovirus 2</i>	new species [28]
36						
37	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Chiropteran bocaparvovirus 3</i>	new species [28]
38						
39	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Chiropteran bocaparvovirus 4</i>	new species [28]
40						
41	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Lagomorph bocaparvovirus 1</i>	new species [28]
42						
43	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Ungulate bocaparvovirus 6</i>	new species [28]
44						
45	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Bocaparvovirus</i>	<i>Chiropteran protoparvovirus 1</i>	new species [29]
46						
47	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Protoparvovirus</i>	<i>Eulipotyphla protoparvovirus 1</i>	new species [29]
48						
49	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Protoparvovirus</i>	<i>Primate protoparvovirus 2</i>	new species [29]
50						
51	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Protoparvovirus</i>	<i>Primate protoparvovirus 3</i>	new species [29]
52						
53	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Protoparvovirus</i>	<i>Rodent protoparvovirus 3</i>	new species [29]
54						
55	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Protoparvovirus</i>	<i>Ungulate protoparvovirus 2</i>	new species [29]
56						
57	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Protoparvovirus</i>		
58						
59	unassigned	<i>Parvoviridae</i>	<i>Parvovirinae</i>	<i>Protoparvovirus</i>		
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22	unassigned	<i>Iridoviridae</i>	<i>Alphairidovirinae</i>	<i>Ranavirus</i>	Common midwife toad virus	new species [30]
23						
24	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>		rename genus (previous name: <i>Spumavirus</i>) [31]
25						
26	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	<i>Eastern chimpanzee simian foamy virus</i>	rename species (previous name: <i>Simian foamy virus</i>) [31]
27						
28	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Western chimpanzee simian foamy virus	new species [31]
29						
30	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Central chimpanzee simian foamy virus	new species [31]
31						
32						
33	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Western lowland gorilla simian foamy virus	new species [31]
34						
35	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Bornean orangutan simian foamy virus	new species [31]
36						
37	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	<i>Taiwanese macaque simian foamy virus</i>	rename species (previous name: <i>Macaque simian foamy virus</i>) [31]
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39						
40	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Rhesus macaque simian foamy virus	new species [31]
41						
42	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Japanese macaque simian foamy virus	new species [31]
43						
44						
45	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	<i>Grivet simian foamy virus</i>	rename species (previous name: <i>African green monkey simian foamy virus</i>) [31]
46						
47	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Guenon simian foamy virus	new species [31]
48						
49	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Spider monkey simian foamy virus	new species [31]
50						
51						
52	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	White-tufted-ear marmoset simian foamy virus	new species [31]
53						
54						
55	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Squirrel monkey simian foamy virus	new species [31]
56						
57	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Simiispumavirus</i>	Yellow-breasted capuchin simian foamy virus	new species [31]
58						
59	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	Prosimiispumavirus		new genus [31]
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22	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Prosimiispumavirus</i>	<i>Brown greater galago prosimian foamy virus</i>	new (type) species [31]
23						
24	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Bovispumavirus</i>		new genus [31]
25	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Bovispumavirus</i>	<i>Bovine foamy virus</i>	move species to be type species (previous position: <i>Retroviridae/Spumaretrovirinae/Spumavirus</i>) [31]
26						
27	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Felispumavirus</i>		new genus [31]
28						
29	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Felispumavirus</i>	<i>Feline foamy virus</i>	move species to be type species (previous position: <i>Retroviridae/Spumaretrovirinae/Spumavirus</i>) [31]
30						
31	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Felispumavirus</i>	<i>Puma feline foamy virus</i>	new species [31]
32						
33	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Equispumavirus</i>		new genus [31]
34	unassigned	<i>Retroviridae</i>	<i>Spumaretrovirinae</i>	<i>Equispumavirus</i>	<i>Equine foamy virus</i>	move species to be type species (previous position: <i>Retroviridae/Spumaretrovirinae/Spumavirus</i>) [31]
35						
36	unassigned	<i>Polyomaviridae</i>		<i>unassigned</i>	<i>Rhynchobatus djiddensis polyomavirus 1</i>	new unassigned species [32]
37						
38	unassigned	<i>Polyomaviridae</i>		<i>Betapolyomavirus</i>	<i>Vicugna pacos polyomavirus 1</i>	new species [32]
39						
40	unassigned	<i>Polyomaviridae</i>		<i>Betapolyomavirus</i>	<i>Rattus norvegicus polyomavirus 2</i>	new species [32]
41						
42	unassigned	<i>Polyomaviridae</i>		<i>Betapolyomavirus</i>	<i>Leptonychotes weddellii polyomavirus 1</i>	new species [32]
43						
44	unassigned	<i>Polyomaviridae</i>		<i>Alphapolyomavirus</i>	<i>Piliocolobus badius polyomavirus 1</i>	new species [32]
45						
46	unassigned	<i>Polyomaviridae</i>		<i>Gammapolyomavirus</i>	<i>Lonchura maja polyomavirus 1</i>	new species [32]
47						
48	unassigned	<i>Polyomaviridae</i>		<i>Gammapolyomavirus</i>	<i>Erythrura gouldiae polyomavirus 1</i>	new species [32]
49						
50	unassigned	<i>Polyomaviridae</i>		<i>unassigned</i>	<i>Trematomus pennellii polyomavirus 1</i>	new species [32]
51						
52	unassigned	<i>Baculoviridae</i>		<i>Betabaculovirus</i>	<i>Cnaphalocrocis medinalis granulovirus</i>	new species [33]
53						
54	unassigned	<i>Baculoviridae</i>		<i>Betabaculovirus</i>	<i>Mythimna unipuncta granulovirus A</i>	rename species (previous name: <i>Pseudalatia unipuncta granulovirus</i>) [33]
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22	unassigned	<i>Baculoviridae</i>	<i>Betabaculovirus</i>	<i>Mythimna unipuncta granulovirus B</i>	new species [33]
23					
24	unassigned	<i>Circoviridae</i>	<i>Circovirus</i>	<i>Porcine circovirus 3</i>	new species [34]
25					
26	unassigned	<i>Circoviridae</i>	<i>Circovirus</i>	<i>Bat associated circovirus 9</i>	new species [34]
27					
28	unassigned	<i>Circoviridae</i>	<i>Cyclovirus</i>	<i>Mouse associated cyclovirus 1</i>	new species [34]
29					
30	unassigned	<i>Circoviridae</i>	<i>Cyclovirus</i>	<i>Human associated cyclovirus 12</i>	new species [34]
31					
32					
33	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>		new subfamily [35]
34	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Alphapapillomavirus</i>	assign genus and constituent species (<i>Alphapapillomavirus 1</i> to <i>Alphapapillomavirus 14</i> , inclusive) to new subfamily [35]
35					
36	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Betapapillomavirus</i>	assign genus and constituent species (<i>Betapapillomavirus 1</i> to <i>Betapapillomavirus 6</i> , inclusive) to new subfamily [35]
37					
38	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Chipapillomavirus</i>	assign genus and constituent species (<i>Chipapillomavirus 1</i> , <i>Chipapillomavirus 2</i> , <i>Chipapillomavirus 3</i>) to new subfamily [35]
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41	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Deltapapillomavirus</i>	assign genus and constituent species (<i>Deltapapillomavirus 1</i> to <i>Deltapapillomavirus 6</i> , inclusive) to new subfamily [35]
42					
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44	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyochipapillomavirus</i>	assign genus and constituent species (<i>Dyochipapillomavirus 1</i>) to new subfamily [35]
45					
46	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyodeltapapillomavirus</i>	assign genus and constituent species (<i>Dyodeltapapillomavirus 1</i>) to new subfamily [35]
47					
48	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyoepsilonpapillomavirus</i>	assign genus and constituent species (<i>Dyoepsilonpapillomavirus 1</i>) to new subfamily [35]
49					
50					
51	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyoetapapillomavirus</i>	assign genus and constituent species (<i>Dyoetapapillomavirus 1</i>) to new subfamily [35]
52					
53	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyoiotapapillomavirus</i>	assign genus and constituent species (<i>Dyoiotapapillomavirus 1</i> , <i>Dyoiotapapillomavirus 2</i>) to new subfamily [35]
54					
55					
56	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyokappapapillomavirus</i>	assign genus and constituent species (<i>Dyokappapapillomavirus 1</i> , <i>Dyokappapapillomavirus 2</i>) to new subfamily [35]
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22	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyolambdapapillomavirus</i>	assign genus and constituent species (<i>Dyolambdapapillomavirus 1</i>) to new subfamily [35]
23					
24	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyomupapillomavirus</i>	assign genus and constituent species (<i>Dyomupapillomavirus 1</i>) to new subfamily [35]
25					
26	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyonupapillomavirus</i>	assign genus and constituent species (<i>Dyonapillomavirus 1</i>) to new subfamily [35]
27					
28	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyomegapapillomavirus</i>	assign genus and constituent species (<i>Dyomegapapillomavirus 1</i>) to new subfamily [35]
29					
30	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyoomikronpapillomavirus</i>	assign genus and constituent species (<i>Dyoomikronpapillomavirus 1</i>) to new subfamily [35]
31					
32	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyophipapillomavirus</i>	assign genus and constituent species (<i>Dyophipapillomavirus 1</i>) to new subfamily [35]
33					
34	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyopipapillomavirus</i>	assign genus and constituent species (<i>Dyopipapillomavirus 1</i>) to new subfamily [35]
35					
36	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyopsipapillomavirus</i>	assign genus and constituent species (<i>Dyopsipapillomavirus 1</i>) to new subfamily [35]
37					
38	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyorhopapillomavirus</i>	assign genus and constituent species (<i>Dyorhopapillomavirus 1</i>) to new subfamily [35]
39					
40	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyosigmapapillomavirus</i>	assign genus and constituent species (<i>Dyosigmapapillomavirus 1</i>) to new subfamily [35]
41					
42	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyotapapillomavirus</i>	assign genus and constituent species (<i>Dyotapapillomavirus 1</i>) to new subfamily [35]
43					
44	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyothetapapillomavirus</i>	assign genus and constituent species (<i>Dyothetapapillomavirus 1</i>) to new subfamily [35]
45					
46	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyousilonpapillomavirus</i>	assign genus and constituent species (<i>Dyousilonpapillomavirus 1</i>) to new subfamily [35]
47					
48	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyoxipapillomavirus</i>	assign genus and constituent species (<i>Dyoxipapillomavirus 1</i>) to new subfamily [35]
49					
50	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyozetapapillomavirus</i>	assign genus and constituent species (<i>Dyozetapapillomavirus 1</i>) to new subfamily [35]
51					
52	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Epsilonpapillomavirus</i>	assign genus and constituent species (<i>Epsilonpapillomavirus 1</i>) to new subfamily [35]
53					
54	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>		
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56	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>		
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22	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Etapapillomavirus</i>	assign genus and constituent species (<i>Etapapillomavirus 1</i>) to new subfamily [35]
23					
24	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Gammapapillomavirus</i>	assign genus and constituent species (<i>Gammapapillomavirus 1</i> to <i>Gammapapillomavirus 26</i> , inclusive) to new subfamily [35]
25					
26					
27	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Iotapapillomavirus</i>	assign genus and constituent species (<i>Iotapapillomavirus 1</i>) to new subfamily [35]
28					
29					
30	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Kappapapillomavirus</i>	assign genus and constituent species (<i>Kappapapillomavirus 1</i> , <i>Kappapapillomavirus 2</i>) to new subfamily [35]
31					
32	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Lambdapapillomavirus</i>	assign genus and constituent species (<i>Lambdapapillomavirus 1</i> to <i>Lambdapapillomavirus 5</i> , inclusive) to new subfamily [35]
33					
34					
35	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Mupapillomavirus</i>	assign genus and constituent species (<i>Mupapillomavirus 1</i> , <i>Mupapillomavirus 2</i> , <i>Mupapillomavirus 3</i>) to new subfamily [35]
36					
37					
38	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Nupapillomavirus</i>	assign genus and constituent species (<i>Nupapillomavirus 1</i>) to new subfamily [35]
39					
40	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Omegapapillomavirus</i>	assign genus and constituent species (<i>Omegapapillomavirus 1</i>) to new subfamily [35]
41					
42					
43	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Omikronpapillomavirus</i>	assign genus and constituent species (<i>Omikronpapillomavirus 1</i>) to new subfamily [35]
44					
45	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Phipapillomavirus</i>	assign genus and constituent species (<i>Phipapillomavirus 1</i>) to new subfamily [35]
46					
47	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Pipapillomavirus</i>	assign genus and constituent species (<i>Pipapillomavirus 1</i> , <i>Pipapillomavirus 2</i>) to new subfamily [35]
48					
49					
50	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Psipapillomavirus</i>	assign genus and constituent species (<i>Psipapillomavirus 1</i>) to new subfamily [35]
51					
52	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Rhopapillomavirus</i>	assign genus and constituent species (<i>Rhopapillomavirus 1</i> , <i>Rhopapillomavirus 2</i>) to new subfamily [35]
53					
54					
55	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Sigmapapillomavirus</i>	assign genus and constituent species (<i>Sigmapapillomavirus 1</i>) to new subfamily [35]
56					
57	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Taupapillomavirus</i>	assign genus and constituent species (<i>Taupapillomavirus 1</i> , <i>Taupapillomavirus 2</i> , <i>Taupapillomavirus 3</i>) to new subfamily [35]
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22	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Thetapapillomavirus</i>	assign genus and constituent species (<i>Thetapapillomavirus 1</i>) to new subfamily	[35]	
23							
24	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treisdeltapapillomavirus</i>	assign genus and constituent species (<i>Treisdeltapapillomavirus 1</i>) to new subfamily	[35]	
25							
26	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treisepsilon papillomavirus</i>	assign genus and constituent species (<i>Treisepsilon papillomavirus 1</i>) to new subfamily	[35]	
27							
28	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treisetapapillomavirus</i>	assign genus and constituent species (<i>Treisetapapillomavirus 1</i>) to new subfamily	[35]	
29							
30							
31	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treiszetapapillomavirus</i>	assign genus and constituent species (<i>Treiszetapapillomavirus 1</i>) to new subfamily	[35]	
32							
33	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Upsilon papillomavirus</i>	assign genus and constituent species (<i>Upsilon papillomavirus 1</i> , <i>Upsilon papillomavirus 2</i> , <i>Upsilon papillomavirus 3</i>) to new subfamily	[35]	
34							
35							
36	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Xipapillomavirus</i>	assign genus and constituent species (<i>Xipapillomavirus 1</i> , <i>Xipapillomavirus 2</i> , <i>Xipapillomavirus 3</i>) to new subfamily	[35]	
37							
38							
39	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Zetapapillomavirus</i>	assign genus and constituent species (<i>Zetapapillomavirus 1</i>) to new subfamily	[35]	
40							
41	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Gammapapillomavirus</i>	<i>Gammapapillomavirus 27</i>	new species	[35]
42							
43	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treisthetapapillomavirus</i>		new genus	[35]
44	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treisthetapapillomavirus</i>	<i>Treisthetapapillomavirus 1</i>	new (type) species	[35]
45							
46	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Psipapillomavirus</i>	<i>Psipapillomavirus 2</i>	new species	[35]
47							
48	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Psipapillomavirus</i>	<i>Psipapillomavirus 3</i>	new species	[35]
49							
50	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Epsilon papillomavirus</i>	<i>Epsilon papillomavirus 2</i>	new species	[35]
51							
52	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Iotapapillomavirus</i>	<i>Iotapapillomavirus 2</i>	new species	[35]
53							
54	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treisiotapapillomavirus</i>		new genus	[35]
55							
56	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treisiotapapillomavirus</i>	<i>Treisiotapapillomavirus 1</i>	new (type) species	[35]
57							
58	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Taupapillomavirus</i>	<i>Taupapillomavirus 4</i>	new species	[35]
59							
60	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyokappapapillomavirus</i>	<i>Dyokappapapillomavirus 3</i>	new species	[35]
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22	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyokappapapillomavirus</i>	<i>Dyokappapapillomavirus 4</i>	new species [35]
23						
24	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyoxipapillomavirus</i>	<i>Dyoxipapillomavirus 2</i>	new species [35]
25						
26	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treiskappapapillomavirus</i>		new genus [35]
27	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Treiskappapapillomavirus</i>	<i>Treiskappapapillomavirus 1</i>	new (type) species [35]
28						
29	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Xipapillomavirus</i>	<i>Xipapillomavirus 5</i>	new species [35]
30						
31	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Dyokappapapillomavirus</i>	<i>Dyokappapapillomavirus 5</i>	new species [35]
32						
33	unassigned	<i>Papillomaviridae</i>	<i>Firstpapillomavirinae</i>	<i>Deltapapillomavirus</i>	<i>Deltapapillomavirus 7</i>	new species [35]
34						
35	unassigned	<i>Papillomaviridae</i>	<i>Secondpapillomavirinae</i>			new subfamily [35]
36	unassigned	<i>Papillomaviridae</i>	<i>Secondpapillomavirinae</i>	<i>Alefpapillomavirus</i>		new genus [35]
37	unassigned	<i>Papillomaviridae</i>	<i>Secondpapillomavirinae</i>	<i>Alefpapillomavirus</i>	<i>Alefpapillomavirus 1</i>	new (type) species [35]
38						
39	unassigned	<i>Smacoviridae</i>				new family [36]
40	unassigned	<i>Smacoviridae</i>		<i>Bovismacovirus</i>		new genus [36]
41						
42	unassigned	<i>Smacoviridae</i>		<i>Bovismacovirus</i>	<i>Bovine associated bovismacovirus 1</i>	new (type) species [36]
43						
44	unassigned	<i>Smacoviridae</i>		<i>Bovismacovirus</i>	<i>Bovine associated bovismacovirus 2</i>	new species [36]
45						
46	unassigned	<i>Smacoviridae</i>		<i>Bovismacovirus</i>	<i>Dragonfly associated bovismacovirus 1</i>	new species [36]
47						
48						
49	unassigned	<i>Smacoviridae</i>		<i>Drosmacovirus</i>		new genus [36]
50	unassigned	<i>Smacoviridae</i>		<i>Drosmacovirus</i>	<i>Camel associated drosmacovirus 1</i>	new (type) species [36]
51						
52	unassigned	<i>Smacoviridae</i>		<i>Drosmacovirus</i>	<i>Bovine associated drosmacovirus 1</i>	new species [36]
53						
54						
55	unassigned	<i>Smacoviridae</i>		<i>Drosmacovirus</i>	<i>Camel associated drosmacovirus2</i>	new species [36]
56						
57	unassigned	<i>Smacoviridae</i>		<i>Huchismacovirus</i>		new genus [36]
58						
59	unassigned	<i>Smacoviridae</i>		<i>Huchismacovirus</i>	<i>Bovine associated huchismacovirus 1</i>	new species [36]
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22	unassigned	<i>Smacoviridae</i>	<i>Huchismacovirus</i>	<i>Chicken associated huchismacovirus 1</i>	new species [36]
23					
24	unassigned	<i>Smacoviridae</i>	<i>Huchismacovirus</i>	<i>Human associated huchismacovirus 1</i>	new (type) species [36]
25					
26	unassigned	<i>Smacoviridae</i>	<i>Huchismacovirus</i>	<i>Chicken associated huchismacovirus 2</i>	new species [36]
27					
28	unassigned	<i>Smacoviridae</i>	<i>Huchismacovirus</i>	<i>Human associated huchismacovirus 2</i>	new species [36]
29					
30	unassigned	<i>Smacoviridae</i>	<i>Huchismacovirus</i>	<i>Human associated huchismacovirus 3</i>	new species [36]
31					
32	unassigned	<i>Smacoviridae</i>	<i>Huchismacovirus</i>	<i>Bovine associated huchismacovirus 2</i>	new species [36]
33					
34	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>		new genus [36]
35					
36	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Camel associated porprismacovirus 1</i>	new species [36]
37					
38	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Bovine associated porprismacovirus 1</i>	new species [36]
39					
40	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Sheep associated porprismacovirus 2</i>	new species [36]
41					
42	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 10</i>	new species [36]
43					
44	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Chimpanzee associated porprismacovirus 1</i>	new (type) species [36]
45					
46	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Chimpanzee associated porprismacovirus 2</i>	new species [36]
47					
48	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Human associated porprismacovirus 1</i>	new species [36]
49					
50	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 1</i>	new species [36]
51					
52	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 5</i>	new species [36]
53					
54	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 4</i>	new species [36]
55					
56	unassigned	<i>Smacoviridae</i>			
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58	unassigned	<i>Smacoviridae</i>			
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22	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Howler monkey associated porprismacovirus 1</i>	new species [36]
23					
24					
25	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Human-associated porprismacovirus 2</i>	new species [36]
26					
27	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Turkey associated porprismacovirus 1</i>	new species [36]
28					
29					
30	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 8</i>	new species [36]
31					
32	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 6</i>	new species [36]
33					
34	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Lemur associated porprismacovirus 1</i>	new species [36]
35					
36					
37	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Rat associated porprismacovirus 1</i>	new species [36]
38					
39	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 2</i>	new species [36]
40					
41	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 3</i>	new species [36]
42					
43					
44	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Camel associated porprismacovirus 2</i>	new species [36]
45					
46	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 9</i>	new species [36]
47					
48					
49	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Camel associated porprismacovirus 3</i>	new species [36]
50					
51	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Camel associated porprismacovirus 4</i>	new species [36]
52					
53	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Porcine associated porprismacovirus 7</i>	new species [36]
54					
55					
56	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Gorilla associated porprismacovirus 1</i>	new species [36]
57					
58	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Sheep associated porprismacovirus 1</i>	new species [36]
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21					
22	unassigned	<i>Smacoviridae</i>	<i>Porprismacovirus</i>	<i>Sheep associated porprismacovirus 3</i>	new species [36]
23					
24	unassigned	<i>Smacoviridae</i>	<i>Cosmacovirus</i>		new genus [36]
25					
26	unassigned	<i>Smacoviridae</i>	<i>Cosmacovirus</i>	<i>Bovine associated cosmacovirus 1</i>	new (type) species [36]
27					
28	unassigned	<i>Smacoviridae</i>	<i>Dragsmacovirus</i>		new genus [36]
29	unassigned	<i>Smacoviridae</i>	<i>Dragsmacovirus</i>	<i>Dragonfly associated dragsmacovirus 1</i>	new (type) species [36]
30					
31					
32	<i>Herpesvirales</i>	<i>Alloherpesviridae</i>	<i>Batrachovirus</i>	<i>Ranid herpesvirus 3</i>	new species [37]
33	<i>Ortervirales</i>				new order [38]
34					
35	<i>Ortervirales</i>	<i>Belpaoviridae</i>			assign new family proposed in ref [29]) to new order [38]
36	<i>Ortervirales</i>	<i>Caulimoviridae</i>			assign family to new order [38]
37	<i>Ortervirales</i>	<i>Metaviridae</i>			assign family to new order [38]
38					
39	<i>Ortervirales</i>	<i>Pseudoviridae</i>			assign family to new order [38]
40	<i>Ortervirales</i>	<i>Retroviridae</i>			assign family to new order [38]
41					
42	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Bat mastadenovirus C</i>	new species [39]
43	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Bat mastadenovirus D</i>	new species [39]
44					
45	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Bat mastadenovirus E</i>	new species [39]
46	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Bat mastadenovirus F</i>	new species [39]
47					
48	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Bat mastadenovirus G</i>	new species [39]
49	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Simian mastadenovirus I</i>	new species [39]
50	unassigned	<i>Adenoviridae</i>	<i>Aviadenovirus</i>	<i>Psittacine aviadenovirus B</i>	new species [39]
51					
52					
53	unassigned	<i>Adenoviridae</i>	<i>Aviadenovirus</i>	<i>Pigeon aviadenovirus B</i>	new species [39]
54	unassigned	<i>Hepadnaviridae</i>	<i>unassigned</i>	<i>Bluegill hepatitis B virus</i>	new species [40]
55					
56	unassigned	<i>Hepadnaviridae</i>	<i>unassigned</i>	<i>Tibetan frog hepatitis B virus</i>	new species [40]
57					
58	unassigned	<i>Adenoviridae</i>	<i>Atadenovirus</i>	<i>Deer atadenovirus A</i>	new species [41]
59	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Deer mastadenovirus B</i>	new species [41]
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22	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Dolphin mastadenovirus B</i>	new species [41]
23					
24	unassigned	<i>Adenoviridae</i>	<i>Mastadenovirus</i>	<i>Squirrel mastadenovirus A</i>	new species [41]
25					
26	unassigned	<i>Bacilladnaviridae</i>			new family [42]
27					
28	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>		rename genus (previous name: <i>Bacilladnavirus</i>) and assign to new family [42]
29					
30	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>	<i>Chaetoceros protobacilladnavirus 1</i>	rename species (previous name: <i>Chaetoceros salsugineum DNA virus 01</i>) [42]
31					
32	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>	<i>Chaetoceros protobacilladnavirus 2</i>	new species [42]
33					
34	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>	<i>Chaetoceros protobacilladnavirus 3</i>	new species [42]
35					
36	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>	<i>Chaetoceros protobacilladnavirus 4</i>	new species [42]
37					
38	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>	<i>Snail associated protobacilladnavirus 1</i>	new species [42]
39					
40	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>	<i>Snail associated protobacilladnavirus 2</i>	new species [42]
41					
42	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>	<i>Marine protobacilladnavirus 1</i>	new species [42]
43					
44	unassigned	<i>Bacilladnaviridae</i>	<i>Protobacilladnavirus</i>		new genus [42]
45					
46	unassigned	<i>Bacilladnaviridae</i>	<i>Diatodnavirus</i>	<i>Chaetoceros diatodnavirus 1</i>	new (type) species [42]
47					
48	unassigned	<i>Bacilladnaviridae</i>	<i>Diatodnavirus</i>		new genus [42]
49					
50	unassigned	<i>Bacilladnaviridae</i>	<i>Kieseladnavirus</i>	<i>Avon-Heathcote Estuary associated kieseladnavirus</i>	new (type) species [42]
51					
52	unassigned	<i>Bacilladnaviridae</i>	<i>Kieseladnavirus</i>		new genus [42]
53					
54	unassigned	<i>Inoviridae</i>	<i>Plectrovirus</i>	<i>Acholeplasma virus L51</i>	rename species (previous name: <i>Acholeplasma virus MV-L51</i>) [43]
55					
56	unassigned	<i>Arenaviridae</i>	<i>Mammarenavirus</i>	<i>Serra do Navio mammarenavirus</i>	rename species (previous name: <i>Amapari mammarenavirus</i>) [463]
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22	unassigned	<i>Luteoviridae</i>	<i>Unassigned</i>	<i>Barley yellow dwarf virus GPV</i>	rename species (previous name: <i>Barley yellow dwarf virus-GPV</i>) [43]
23					
24	unassigned	<i>Luteoviridae</i>	<i>Luteovirus</i>	<i>Barley yellow dwarf virus kerII</i>	rename species (previous name: <i>Barley yellow dwarf virus-kerII</i>) [43]
25					
26	unassigned	<i>Luteoviridae</i>	<i>Luteovirus</i>	<i>Barley yellow dwarf virus kerIII</i>	rename species (previous name: <i>Barley yellow dwarf virus-kerIII</i>) [43]
27					
28	unassigned	<i>Luteoviridae</i>	<i>Luteovirus</i>	<i>Barley yellow dwarf virus MAV</i>	rename species (previous name: <i>Barley yellow dwarf virus-MAV</i>) [43]
29					
30					
31	unassigned	<i>Luteoviridae</i>	<i>Luteovirus</i>	<i>Barley yellow dwarf virus PAS</i>	rename species (previous name: <i>Barley yellow dwarf virus-PAS</i>) [43]
32					
33	unassigned	<i>Luteoviridae</i>	<i>Luteovirus</i>	<i>Barley yellow dwarf virus PAV</i>	rename species (previous name: <i>Barley yellow dwarf virus-PAV</i>) [43]
34					
35	unassigned	<i>Luteoviridae</i>	<i>Unassigned</i>	<i>Barley yellow dwarf virus SGV</i>	rename species (previous name: <i>Barley yellow dwarf virus-SGV</i>) [43]
36					
37					
38	unassigned	<i>Luteoviridae</i>	<i>Polerovirus</i>	<i>Cereal yellow dwarf virus RPS</i>	rename species (previous name: <i>Barley yellow dwarf virus-RPS</i>) [43]
39					
40	unassigned	<i>Luteoviridae</i>	<i>Polerovirus</i>	<i>Cereal yellow dwarf virus RPV</i>	rename species (previous name: <i>Barley yellow dwarf virus-RPV</i>) [43]
41					
42					
43	<i>Picornavirales</i>	<i>Unassigned</i>	<i>Bacillarnavirus</i>	<i>Chaetoceros socialis forma radians RNA virus I</i>	rename species (previous name: <i>Chaetoceros socialis f. radians RNA virus 01</i>) [43]
44					
45					
46	unassigned	<i>Polydnviridae</i>	<i>Bracovirus</i>	<i>Chelonus near curvimaculatus bracovirus</i>	rename species (previous name: <i>Chelonus nr. curvimaculatus bracovirus</i>) [43]
47					
48	<i>Nidovirales</i>	<i>Arteriviridae</i>	<i>Simartevirus</i>	<i>DeBrazza monkey arterivirus</i>	rename species (previous name: <i>DeBrazza's monkey arterivirus</i>) [43]
49					
50					
51	unassigned	<i>Metaviridae</i>	<i>Errantivirus</i>	<i>Drosophila melanogaster 17-6 virus</i>	rename species (previous name: <i>Drosophila melanogaster 17.6 virus</i>) [43]
52					
53	unassigned	<i>Partitiviridae</i>	<i>Unassigned</i>	<i>Gaeumannomyces graminis virus 0196A</i>	rename species (previous name: <i>Gaeumannomyces graminis virus 019/6-A</i>) [43]
54					
55	unassigned	<i>Partitiviridae</i>	<i>Unassigned</i>	<i>Gaeumannomyces graminis virus T1A</i>	rename species (previous name: <i>Gaeumannomyces graminis virus T1-A</i>) [43]
56					
57					
58	<i>Picornavirales</i>	<i>Dicistroviridae</i>	<i>Triatovirus</i>	<i>Homalodisca coagulata virus 1</i>	rename species (previous name: <i>Homalodisca coagulata virus-1</i>) [43]
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22	unassigned	<i>Arenaviridae</i>	<i>Mammarenavirus</i>	<i>Argentinian mammarenavirus</i>	rename species (previous name: <i>Junín mammarenavirus</i>)	[43]	
23							
24	<i>Tymovirales</i>	<i>Betaflexiviridae</i>	<i>Quinvirinae</i>	<i>Carlavirus</i>	<i>Kalanchoe latent virus</i>	rename species (previous name: <i>Kalanchoë latent virus</i>)	[43]
25	unassigned	<i>Potyviridae</i>		<i>Potyvirus</i>	<i>Kalanchoe mosaic virus</i>	rename species (previous name: <i>Kalanchoë mosaic virus</i>)	[43]
26							
27	unassigned	<i>Caulimoviridae</i>		<i>Badnavirus</i>	<i>Kalanchoe top-spotting virus</i>	rename species (previous name: <i>Kalanchoë top-spotting virus</i>)	[43]
28							
29	unassigned	<i>Luteoviridae</i>		<i>Polerovirus</i>	<i>Maize yellow dwarf virus RMV</i>	rename species (previous name: <i>Maize yellow dwarf virus- RMV</i>)	[43]
30							
31	unassigned	<i>Poxviridae</i>	<i>Entomopoxvirinae</i>	<i>Unassigned</i>	<i>Melanoplus sanguinipes entomopoxvirus</i>	rename species (previous name: <i>Melanoplus sanguinipes entomopoxvirus 'O'</i>)	[43]
32							
33							
34	unassigned	<i>Caliciviridae</i>		<i>Nebovirus</i>	<i>Newbury 1 virus</i>	rename species (previous name: <i>Newbury-1 virus</i>)	[43]
35							
36	unassigned	<i>Togaviridae</i>		<i>Alphavirus</i>	<i>Onyong-nyong virus</i>	rename species (previous name: <i>O'nyong-nyong virus</i>)	[43]
37	unassigned	<i>Arenaviridae</i>		<i>Mammarenavirus</i>	<i>Paraguayan mammarenavirus</i>	rename species (previous name: <i>Paraná mammarenavirus</i>)	[43]
38							
39	unassigned	<i>Chrysoviridae</i>		<i>Chrysovirus</i>	<i>Penicillium cyaneofulvum virus</i>	rename species (previous name: <i>Penicillium cyaneo-fulvum virus</i>)	[43]
40							
41							
42	unassigned	<i>Arenaviridae</i>		<i>Mammarenavirus</i>	<i>Cali mammarenavirus</i>	rename species (previous name: <i>Pichindé mammarenavirus</i>)	[43]
43							
44	unassigned	<i>Arenaviridae</i>		<i>Mammarenavirus</i>	<i>Brazilian mammarenavirus</i>	rename species (previous name: <i>Sabiá mammarenavirus</i>)	[43]
45							
46	unassigned	<i>Totiviridae</i>		<i>Totivirus</i>	<i>Saccharomyces cerevisiae virus LBCLa</i>	rename species (previous name: <i>Saccharomyces cerevisiae virus L-BC (La)</i>)	[43]
47							
48							
49	unassigned	<i>Virgaviridae</i>		<i>Tobamovirus</i>	<i>Opuntia chlorotic ringspot virus</i>	rename species (previous name: <i>Sammons's Opuntia virus</i>)	[43]
50							
51	<i>Tymovirales</i>	<i>Betaflexiviridae</i>	<i>Quinvirinae</i>	<i>Carlavirus</i>	<i>Sint-Jan onion latent virus</i>	rename species (previous name: <i>Sint-Jan's onion latent virus</i>)	[43]
52							
53							
54	<i>Picornavirales</i>	<i>Dicistroviridae</i>		<i>Aparavirus</i>	<i>Solenopsis invicta virus 1</i>	rename species (previous name: <i>Solenopsis invicta virus-1</i>)	[43]
55	unassigned	<i>Flaviviridae</i>		<i>Flavivirus</i>	<i>Saint Louis encephalitis virus</i>	rename species (previous name: <i>St. Louis encephalitis virus</i>)	[43]
56							
57	<i>Mononegavirales</i>	<i>Filoviridae</i>		<i>Ebolavirus</i>	<i>Tai Forest ebolavirus</i>	rename species (previous name: <i>Tai Forest ebolavirus</i>)	[43]
58							
59	unassigned	<i>Pseudoviridae</i>		<i>Pseudovirus</i>	<i>Triticum aestivum WIS2 virus</i>	rename species (previous name: <i>Triticum aestivum WIS-2 virus</i>)	[43]
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22	Picornavirales	Iflaviridae	Iflavirus	Varroa destructor virus 1	rename species (previous name: <i>Varroa destructor virus-1</i>)	[43]	
23	unassigned	Retroviridae	Orthoretrovirinae	Lentivirus	Visna-maedi virus	rename species (previous name: <i>Visna/maedi virus</i>)	[43]
24	unassigned	Potyviridae		Tritimovirus	Yellow oat grass mosaic virus	rename species (previous name: <i>Yellow oat-grass mosaic virus</i>)	[43]
25							
26							
27	unassigned	Pseudoviridae		Sirevirus	Zea mays Opie2 virus	rename species (previous name: <i>Zea mays Opie-2 virus</i>)	[43]
28	unassigned	Pseudoviridae		Sirevirus	Zea mays Prem2 virus	rename species (previous name: <i>Zea mays Prem-2 virus</i>)	[43]
29							
30	unassigned	Pseudoviridae		Pseudovirus	Zea mays Sto4 virus	rename species (previous name: <i>Zea mays Sto-4 virus</i>)	[43]
31							
32						see TP List for proposed change to ICVCN	[44]
33	unassigned	Arenaviridae		Hartmanivirus		new genus	[45]
34	unassigned	Arenaviridae		Hartmanivirus	Haartman hartmanivirus	new (type) species	[45]
35							
36	unassigned	Arenaviridae		Mammarenavirus	Ryukyu mammarenavirus	new species	[46]
37	unassigned	Arenaviridae		Mammarenavirus	Souris mammarenavirus	new species	[47]
38	Mononegavirales	Bornaviridae		Orthobornavirus		rename genus	[48]
39							
40	Mononegavirales	Bornaviridae		Orthobornavirus	Elapid 1 orthobornavirus	rename species (previous name: <i>Elapid 1 bornavirus</i>)	[48]
41	Mononegavirales	Bornaviridae		Orthobornavirus	Mammalian 1 orthobornavirus	rename species (previous name: <i>Mammalian 1 bornavirus</i>)	[48]
42							
43							
44	Mononegavirales	Bornaviridae		Orthobornavirus	Mammalian 2 orthobornavirus	rename species (previous name: <i>Mammalian 2 bornavirus</i>)	[48]
45							
46	Mononegavirales	Bornaviridae		Orthobornavirus	Passeriform 1 orthobornavirus	rename species (previous name: <i>Passeriform 1 bornavirus</i>)	[48]
47							
48	Mononegavirales	Bornaviridae		Orthobornavirus	Passeriform 2 orthobornavirus	rename species (previous name: <i>Passeriform 2 bornavirus</i>)	[48]
49							
50							
51	Mononegavirales	Bornaviridae		Orthobornavirus	Psittaciform 1 orthobornavirus	rename species (previous name: <i>Psittaciform 1 bornavirus</i>)	[48]
52							
53	Mononegavirales	Bornaviridae		Orthobornavirus	Psittaciform 2 orthobornavirus	rename species (previous name: <i>Psittaciform 2 bornavirus</i>)	[48]
54							
55							
56	Mononegavirales	Bornaviridae		Orthobornavirus	Waterbird 1 orthobornavirus	rename species (previous name: <i>Waterbird 1 bornavirus</i>)	[48]
57							
58	Mononegavirales	Bornaviridae		Carbovirus		new genus	[49]
59	Mononegavirales	Bornaviridae		Carbovirus	Queensland carbovirus	new (type) species	[49]
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22	Mononegavirales	Bornaviridae	Carbovirus	Southwest carbovirus	new species [49]
23	Bunyvirales	Peribunyaviridae	<i>Orthobunyavirus</i>	Wolkberg orthobunyavirus	new species [50]
24					
25	Bunyvirales	Nairoviridae	<i>Orthonairovirus</i>	Artashat orthonairovirus	new species [51]
26					
27	Bunyvirales	Nairoviridae	<i>Orthonairovirus</i>	<i>Tamdy orthonairovirus</i>	rename species (previous name: <i>Burana orthonairovirus</i>) [51]
28	Bunyvirales	Nairoviridae	<i>Orthonairovirus</i>	Chim orthonairovirus	new species [51]
29					
30	Mononegavirales	Rhabdoviridae	<i>Ledantevirus</i>	Kanyawara ledantevirus	new species [52]
31	Mononegavirales	Paramyxoviridae	<i>Avulavirus</i>	Avian avulavirus 14	new species [53]
32					
33	Mononegavirales	Paramyxoviridae	<i>Avulavirus</i>	Avian avulavirus 15	new species [53]
34	Mononegavirales	Paramyxoviridae	<i>Avulavirus</i>	Avian avulavirus 16	new species [53]
35					
36	Mononegavirales	Paramyxoviridae	<i>Avulavirus</i>	Avian avulavirus 17	new species [53]
37	Mononegavirales	Paramyxoviridae	<i>Avulavirus</i>	Avian avulavirus 18	new species [53]
38	Mononegavirales	Paramyxoviridae	<i>Avulavirus</i>	Avian avulavirus 19	new species [53]
39					
40	unassigned	<i>Orthomyxoviridae</i>	<i>Alphainfluenzavirus</i>		rename genus (previous name: <i>Influenzavirus A</i>) [54]
41	unassigned	<i>Orthomyxoviridae</i>	<i>Beta</i> influenzavirus		rename genus (previous name: <i>Influenzavirus B</i>) [54]
42					
43	unassigned	<i>Orthomyxoviridae</i>	<i>Gamma</i> influenzavirus		rename genus (previous name: <i>Influenzavirus C</i>) [54]
44	unassigned	<i>Orthomyxoviridae</i>	<i>Delta</i> influenzavirus		rename genus (previous name: <i>Influenzavirus D</i>) [54]
45					
46	unassigned	<i>Orthomyxoviridae</i>	<i>Isavirus</i>	<i>Salmon isavirus</i>	rename species (previous name: <i>Infectious salmon anemia virus</i>) [54]
47					
48	unassigned	<i>Orthomyxoviridae</i>	<i>Quaranjavirus</i>	<i>Johnston Atoll quaranjavirus</i>	rename species (previous name: <i>Johnston Atoll virus</i>) [54]
49					
50	unassigned	<i>Orthomyxoviridae</i>	<i>Quaranjavirus</i>	<i>Quaranfil quaranjavirus</i>	rename species (previous name: <i>Quaranfil virus</i>) [54]
51					
52	unassigned	<i>Orthomyxoviridae</i>	<i>Thogotovirus</i>	<i>Dhori thogotovirus</i>	rename species (previous name: <i>Dhori virus</i>) [54]
53	unassigned	<i>Orthomyxoviridae</i>	<i>Thogotovirus</i>	<i>Thogoto thogotovirus</i>	rename species (previous name: <i>Thogoto virus</i>) [54]
54					
55	Mononegavirales	Rhabdoviridae	<i>Lyssavirus</i>	Gannoruwa bat lyssavirus	new species [55]
56	Mononegavirales	Rhabdoviridae	<i>Lyssavirus</i>	Lleida bat lyssavirus	new species [56]
57					
58	unassigned	<i>Arenaviridae</i>	<i>Reptarenavirus</i>	<i>Golden reptarenavirus</i>	rename species (previous name: <i>Alethinophid 1 reptarenavirus</i>) [57]
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22	unassigned	<i>Arenaviridae</i>	<i>Reptarenavirus</i>	<i>California reptarenavirus</i>	rename species (previous name: <i>Alethinophid 2 reptarenavirus</i>) [57]	
23						
24	unassigned	<i>Arenaviridae</i>	<i>Reptarenavirus</i>	<i>Rotterdam reptarenavirus</i>	rename species (previous name: <i>Alethinophid 3 reptarenavirus</i>) [57]	
25						
26	unassigned	<i>Arenaviridae</i>	<i>Reptarenavirus</i>	<i>Ordinary reptarenavirus</i>	new species [57]	
27						
28	unassigned	<i>Arenaviridae</i>	<i>Reptarenavirus</i>	<i>Giessen reptarenavirus</i>	new species [57]	
29	unassigned	<i>Reoviridae</i>	<i>Spinareovirinae</i>	<i>Orthoreovirus</i>	<i>Mahlapitsi orthoreovirus</i>	new species [58]
30						
31	<i>Mononegavirales</i>	<i>Rhabdoviridae</i>		<i>Tibrovirus</i>	<i>Beatrice Hill tibrovirus</i>	new species [59]
32	unassigned	<i>Potyviridae</i>		<i>Roymovirus</i>	new genus [60]	
33						
34	unassigned	<i>Potyviridae</i>		<i>Roymovirus</i>	<i>Rose yellow mosaic virus</i>	species assigned as type species of new genus [60]
35	unassigned	<i>Potyviridae</i>		<i>Bevemovirus</i>	new genus [60]	
36						
37	unassigned	<i>Potyviridae</i>		<i>Bevemovirus</i>	<i>Bellflower veinal mottle virus</i>	new (type) species [60]
38						
39	unassigned	<i>Aspiviridae</i>			rename family (previous name: <i>Ophioviridae</i>) [61]	
40	unassigned	<i>Aspiviridae</i>	<i>Ophiovirus</i>	<i>Blueberry mosaic associated ophiovirus</i>	rename species (previous name: <i>Blueberry mosaic associated virus</i>) [61]	
41						
42						
43	unassigned	<i>Aspiviridae</i>	<i>Ophiovirus</i>	<i>Citrus psorosis ophiovirus</i>	rename species (previous name: <i>Citrus psorosis virus</i>) [61]	
44	unassigned	<i>Aspiviridae</i>	<i>Ophiovirus</i>	<i>Freesia sneak ophiovirus</i>	rename species (previous name: <i>Freesia sneak virus</i>) [61]	
45						
46	unassigned	<i>Aspiviridae</i>	<i>Ophiovirus</i>	<i>Lettuce ring necrosis ophiovirus</i>	rename species (previous name: <i>Lettuce ring necrosis virus</i>) [61]	
47						
48	unassigned	<i>Aspiviridae</i>	<i>Ophiovirus</i>	<i>Mirafiori lettuce big-vein ophiovirus</i>	rename species (previous name: <i>Mirafiori lettuce big-vein virus</i>) [61]	
49						
50	unassigned	<i>Aspiviridae</i>	<i>Ophiovirus</i>	<i>Ranunculus white mottle ophiovirus</i>	rename species (previous name: <i>Ranunculus white mottle virus</i>) [61]	
51						
52						
53	unassigned	<i>Aspiviridae</i>	<i>Ophiovirus</i>	<i>Tulip mild mottle mosaic ophiovirus</i>	rename species (previous name: <i>Tulip mild mottle mosaic virus</i>) [61]	
54						
55	unassigned	<i>Solemoviridae</i>			new family [62]	
56						
57	unassigned	<i>Solemoviridae</i>	<i>Sobemovirus</i>		assign genus (and constituent species) to new family [62]	
58	unassigned	<i>Solemoviridae</i>	<i>Polemovirus</i>		assign genus (and constituent species) to new family [62]	
59	unassigned	<i>Alphasatellitidae</i>			new family [63]	
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22	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>		new subfamily [63]
23	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Ageyesisatellite</i>	new genus [63]
24					
25	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Ageyesisatellite</i>	<i>Ageratum yellow vein Singapore alphasatellite</i> new species [63]
26					
27	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Ageyesisatellite</i>	<i>Cotton leaf curl Saudi Arabia alphasatellite</i> new species [63]
28					
29	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	new genus [63]
30					
31	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Cleome leaf crumple alphasatellite</i> new (type) species [63]
32					
33	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Croton yellow vein mosaic alphasatellite</i> new species [63]
34					
35	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Euphorbia yellow mosaic alphasatellite</i> new species [63]
36					
37					
38	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Tomato yellow spot alphasatellite</i> new species [63]
39					
40	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Melon chlorotic mosaic alphasatellite</i> new species [63]
41					
42	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Sida Cuba alphasatellite</i> new species [63]
43					
44	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Whitefly associated Guatemala alphasatellite 2</i> new species [63]
45					
46					
47	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Clecrusatellite</i>	<i>Whitefly associated Puerto Rico alphasatellite 1</i> new species [63]
48					
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51	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	new genus [63]
52	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Ageratum enation alphasatellite</i> new species [63]
53					
54	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Ageratum yellow vein alphasatellite</i> new species [63]
55					
56					
57	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Ageratum yellow vein China alphasatellite</i> new species [63]
58					
59	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Ageratum yellow vein India alphasatellite</i> new species [63]
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22	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Bhendi yellow vein alphasatellite</i>	new species [63]
23						
24	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Cassava mosaic Madagascar alphasatellite</i>	new species [63]
25						
26						
27	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Chilli leaf curl alphasatellite</i>	new species [63]
28						
29						
30	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Cotton leaf curl Egypt alphasatellite</i>	new species [63]
31						
32	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Cotton leaf curl Gezira alphasatellite</i>	new species [63]
33						
34	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Cotton leaf curl Multan alphasatellite</i>	new (type) species [63]
35						
36						
37	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Cotton leaf curl Lucknow alphasatellite</i>	new species [63]
38						
39	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Gossypium darwinii symptomless alphasatellite</i>	new species [63]
40						
41						
42	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Malvastrum yellow mosaic Cameroon alphasatellite</i>	new species [63]
43						
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46	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Malvastrum yellow mosaic alphasatellite</i>	new species [63]
47						
48	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Pedilanthus leaf curl alphasatellite</i>	new species [63]
49						
50	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Sida leaf curl alphasatellite</i>	new species [63]
51						
52						
53	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Sida yellow vein Vietnam alphasatellite</i>	new species [63]
54						
55	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Sunflower leaf curl Karnataka alphasatellite</i>	new species [63]
56						
57	unassigned	<i>Alphasatellitidae</i>	<i>Geminalphasatellitinae</i>	<i>Colecusatellite</i>	<i>Synedrella leaf curl alphasatellite</i>	new species [63]
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22	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Colecusatellite</i>	<i>Tobacco curly shoot alphasatellite</i>	new species [63]
23						
24	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Colecusatellite</i>	<i>Tomato leaf curl Buea alphasatellite</i>	new species [63]
25						
26	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Colecusatellite</i>	<i>Tomato leaf curl Cameroon alphasatellite</i>	new species [63]
27						
28	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Colecusatellite</i>	<i>Tomato yellow leaf curl Thailand alphasatellite</i>	new species [63]
29						
30						
31	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Colecusatellite</i>	<i>Tomato yellow leaf curl China alphasatellite</i>	new species [63]
32						
33	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Colecusatellite</i>	<i>Tomato yellow leaf curl Yunnan alphasatellite</i>	new species [63]
34						
35	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Gosmusatellite</i>		new genus [63]
36						
37	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Gosmusatellite</i>	<i>Gossypium mustelinum symptomless alphasatellite</i>	new (type) species [63]
38						
39						
40	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Gosmusatellite</i>	<i>Hollyhock yellow vein alphasatellite</i>	new species [63]
41						
42	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Gosmusatellite</i>	<i>Mesta yellow vein mosaic alphasatellite</i>	new species [63]
43						
44	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Gosmusatellite</i>	<i>Okra enation leaf curl alphasatellite</i>	new species [63]
45						
46	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Gosmusatellite</i>	<i>Okra yellow crinkle Cameroon alphasatellite</i>	new species [63]
47						
48	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Gosmusatellite</i>	<i>Vernonia yellow vein Fujian alphasatellite</i>	new species [63]
49						
50	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Unassigned</i>	<i>Whitefly associated Guetamala alphasatellite I</i>	new species [63]
51						
52	unassigned	<i>Alphasatellitidae</i>	<i>Geminialphasatellitinae</i>	<i>Unassigned</i>	<i>Dragonfly associated alphasatellite</i>	new species [63]
53						
54						
55	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>			new subfamily [63]
56						
57	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Babusatellite</i>		new genus [63]
58						
59	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>			
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22	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Babusatellite</i>	<i>Banana bunchy top alphasatellite 3</i>	new species [63]
23						
24	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Babusatellite</i>	<i>Banana bunchy top alphasatellite 1</i>	new (type) species [63]
25						
26	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Babusatellite</i>	<i>Banana bunchy top alphasatellite 2</i>	new species [63]
27						
28	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Babusatellite</i>	<i>Cardamom bushy dwarf alphasatellite</i>	new species [63]
29						
30						
31	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Fabenesatellite</i>		new genus
32						
33	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Fabenesatellite</i>	<i>Faba bean necrotic yellows alphasatellite 2</i>	new (type) species [63]
34						
35	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Milvetsatellite</i>		new genus [63]
36	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Milvetsatellite</i>	<i>Milk vetch dwarf alphasatellite 3</i>	new (type) species [63]
37						
38	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Clostunsatellite</i>		new genus [63]
39						
40	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Clostunsatellite</i>	<i>Milk vetch dwarf alphasatellite 2</i>	new species [63]
41						
42	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Clostunsatellite</i>	<i>Pea necrotic yellow dwarf alphasatellite 2</i>	new species [63]
43						
44						
45	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Clostunsatellite</i>	<i>Sophora yellow stunt alphasatellite 5</i>	new species [63]
46						
47	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Clostunsatellite</i>	<i>Sophora yellow stunt alphasatellite 4</i>	new species [63]
48						
49	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Clostunsatellite</i>	<i>Subterranean clover stunt alphasatellite 2</i>	new (type) species [63]
50						
51						
52	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Mivedwarsatellite</i>		new genus [63]
53	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Mivedwarsatellite</i>	<i>Milk vetch dwarf alphasatellite 1</i>	new (type) species [63]
54						
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56	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Mivedwarsatellite</i>	<i>Pea necrotic yellow dwarf alphasatellite 1</i>	new species [63]
57						
58	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Mivedwarsatellite</i>	<i>Sophora yellow stunt alphasatellite 2</i>	new species [63]
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22	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Mivedwarsatellite</i>	<i>Faba bean necrotic stunt alphasatellite</i>	new species [63]
23						
24	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Subclovsatellite</i>	<i>Faba bean necrotic yellows alphasatellite 1</i>	new species [63]
25						
26	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Subclovsatellite</i>		new genus [63]
27						
28	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Subclovsatellite</i>	<i>Sophora yellow stunt alphasatellit 1</i>	new species [63]
29						
30	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Subclovsatellite</i>	<i>Subterranean clover stunt alphasatellite 1</i>	new (type) species [63]
31						
32						
33	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Sophoyesatellite</i>		new genus [63]
34	unassigned	<i>Alphasatellitidae</i>	<i>Nanoalphasatellitinae</i>	<i>Sophoyesatellite</i>	<i>Sophora yellow stunt alphasatellite 3</i>	new (type) species [66]
35						
36	unassigned	<i>Alphasatellitidae</i>		Unassigned	<i>Coconut foliar decay alphasatellite</i>	new species [63]
37						
38						
39	Picornavirales	<i>Secoviridae</i>	<i>Comovirinae</i>	<i>Fabavirus</i>	<i>Grapevine fabavirus</i>	new species [64]
40	Picornavirales	<i>Secoviridae</i>	<i>Comovirinae</i>	<i>Fabavirus</i>	<i>Prunus virus F</i>	new species [64]
41						
42	Picornavirales	<i>Secoviridae</i>	<i>Comovirinae</i>	<i>Nepovirus</i>	<i>Potato virus B</i>	new species [64]
43	Picornavirales	<i>Secoviridae</i>	<i>Comovirinae</i>	<i>Nepovirus</i>	<i>Soybean latent spherical virus</i>	new species [64]
44						
45	Picornavirales	<i>Secoviridae</i>		<i>unassigned</i>	<i>Dioscorea mosaic associated virus</i>	new species [64]
46						
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48	unassigned	<i>Potyviridae</i>		<i>Ipomovirus</i>	<i>Coccinia mottle virus</i>	new species [65]
49	unassigned	<i>Potyviridae</i>		<i>Potyvirus</i>	<i>Barbacena virus Y</i>	new species [65]
50						
51	unassigned	<i>Potyviridae</i>		<i>Potyvirus</i>	<i>Callistephus mottle virus</i>	new species [65]
52	unassigned	<i>Potyviridae</i>		<i>Potyvirus</i>	<i>Daphne virus Y</i>	new species [65]
53						
54	unassigned	<i>Potyviridae</i>		<i>Potyvirus</i>	<i>Impatiens flower break virus</i>	new species [65]
55						
56	unassigned	<i>Potyviridae</i>		<i>Potyvirus</i>	<i>Pecan mosaic-associated virus</i>	new species [65]
57						
58	unassigned	<i>Potyviridae</i>		<i>Potyvirus</i>	<i>Sunflower ring blotch virus</i>	new species [65]
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22	unassigned	<i>Potyviridae</i>	<i>Potyvirus</i>	<i>Tobacco mosqueado virus</i>	new species [65]
23	unassigned	<i>Potyviridae</i>	<i>Potyvirus</i>	<i>Wild onion symptomless virus</i>	new species [65]
24					
25	unassigned	<i>Geminiviridae</i>	<i>Mastrevirus</i>	<i>Chickpea yellow dwarf virus</i>	new species [66]
26					
27					
28	unassigned	<i>Geminiviridae</i>	<i>Mastrevirus</i>	<i>Dragonfly-associated mastrevirus</i>	new species [66]
29					
30	unassigned	<i>Geminiviridae</i>	<i>Mastrevirus</i>	<i>Sugarcane striate virus</i>	new species [66]
31					
32	unassigned	<i>Geminiviridae</i>	<i>Mastrevirus</i>	<i>Sweet potato symptomless virus 1</i>	new species [66]
33					
34	unassigned	<i>Geminiviridae</i>	<i>Mastrevirus</i>	<i>Sugarcane chlorotic streak virus</i>	new species [66]
35					
36	unassigned	<i>Geminiviridae</i>	<i>Turncurtovirus</i>	<i>Turnip leaf roll virus</i>	new species [67]
37					
38	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Allamanda leaf mottle distortion virus</i>	new species [68]
39					
40	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Andrographis yellow vein leaf curl virus</i>	new species [68]
41					
42	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Asystasia mosaic Madagascar virus</i>	new species [68]
43					
44					
45	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Bean white chlorosis mosaic virus</i>	new species [68]
46					
47	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Cnidoscopus mosaic leaf deformation virus</i>	new species [68]
48					
49	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Coccinia mosaic Tamil Nadu virus</i>	new species [68]
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51					
52	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Common bean mottle virus</i>	new species [68]
53					
54	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Common bean severe mosaic virus</i>	new species [68]
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57	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Cotton leaf curl Barasat virus</i>	new species [68]
58					
59	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Cotton yellow mosaic virus</i>	new species [68]
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22	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Deinbollia mosaic virus</i>	new species [68]
23	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Desmodium mottle virus</i>	new species [68]
24					
25	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Duranta leaf curl virus</i>	new species [68]
26	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Euphorbia mosaic Peru virus</i>	new species [68]
27					
28	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Euphorbia yellow leaf curl virus</i>	new species [68]
29					
30					
31	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Hollyhock yellow vein mosaic virus</i>	new species [68]
32					
33	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Jacquemontia yellow mosaic virus</i>	new species [68]
34					
35	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Jatropha leaf curl Gujarat virus</i>	new species [68]
36					
37					
38	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Jatropha leaf yellow mosaic virus</i>	new species [71]
39					
40	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Lisianthus enation leaf curl virus</i>	new species [68]
41					
42	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Lycianthes yellow mosaic virus</i>	new species [68]
43					
44					
45	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Macroptilium bright mosaic virus</i>	new species [68]
46					
47	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Macroptilium common mosaic virus</i>	new species [68]
48					
49	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Malvastrum bright yellow mosaic virus</i>	new species [68]
50					
51					
52	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Malvastrum yellow vein Cambodia virus</i>	new species [68]
53					
54	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Melochia mosaic virus</i>	new species [68]
55					
56	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Melochia yellow mosaic virus</i>	new species [68]
57					
58	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Mirabilis leaf curl virus</i>	new species [68]
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22	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Okra leaf curl Oman virus</i>	new species [68]
23					
24	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Oxalis yellow vein virus</i>	new species [68]
25					
26	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Passionfruit leaf distortion virus</i>	new species [68]
27					
28	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Pavonia mosaic virus</i>	new species [68]
29	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Pavonia yellow mosaic virus</i>	new species [68]
30					
31					
32	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Pea leaf distortion virus</i>	new species [68]
33	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Pepper yellow leaf curl Thailand virus</i>	new species [68]
34					
35	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Ramie mosaic Yunnan virus</i>	new species [68]
36					
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38	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Senna leaf curl virus</i>	new species [68]
39	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Sida angular mosaic virus</i>	new species [68]
40					
41					
42	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Sida bright yellow mosaic virus</i>	new species [68]
43					
44	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Sida chlorotic mottle virus</i>	new species [68]
45					
46	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Sida chlorotic vein virus</i>	new species [68]
47					
48	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Sida golden yellow spot virus</i>	new species [68]
49					
50	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Solanum mosaic Bolivia virus</i>	new species [68]
51					
52	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Sweet potato golden vein Korea virus</i>	new species [68]
53					
54					
55	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Sweet potato leaf curl Guangxi virus</i>	new species [68]
56					
57	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Synedrella yellow vein clearing virus</i>	new species [68]
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22	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Telfairia golden mosaic virus</i>	new species [68]
23					
24	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato chlorotic mottle Guyane virus</i>	new species [68]
25					
26	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato enation leaf curl virus</i>	new species [68]
27					
28	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato golden leaf spot virus</i>	new species [68]
29					
30					
31	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato latent virus</i>	new species [68]
32					
33	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato leaf curl Burkina Faso virus</i>	new species [68]
34					
35	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato mottle wrinkle virus</i>	new species [68]
36					
37	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato yellow leaf curl Shuangbai virus</i>	new species [68]
38					
39	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Tomato yellow leaf curl Yunnan virus</i>	new species [68]
40					
41	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Triumfetta yellow mosaic virus</i>	new species [68]
42					
43	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Velvet bean golden mosaic virus</i>	new species [68]
44					
45	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Whitefly-associated begomovirus 1</i>	new species [68]
46					
47	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Whitefly-associated begomovirus 2</i>	new species [68]
48					
49	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Whitefly-associated begomovirus 3</i>	new species [68]
50					
51	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Whitefly-associated begomovirus 4</i>	new species [68]
52					
53	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Whitefly-associated begomovirus 5</i>	new species [68]
54					
55	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Whitefly-associated begomovirus 6</i>	new species [68]
56					
57	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Whitefly-associated begomovirus 7</i>	new species [68]
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22	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Vernonia crinkle virus</i>	new species [68]
23	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Vinca leaf curl virus</i>	new species [68]
24					
25	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Wissadula yellow mosaic virus</i>	new species [68]
26					
27	unassigned	<i>Geminiviridae</i>	<i>Begomovirus</i>	<i>Pedilanthus leaf curl virus</i>	rename species (previous name: <i>Pedilanthus leaf curl virus</i>) [69]
28	unassigned	<i>Tolecusatellitidae</i>	<i>Betasatellite</i>	<i>Tomato leaf curl Java betasatellite</i>	rename species (previous name: <i>Tomato leaf curl Java virus betasatellite</i>) [69]
29					
30					
31	unassigned	<i>Geminiviridae</i>	<i>Mastrevirus</i>	<i>Sporobolus striate mosaic virus 1</i>	rename species (previous name: <i>Sporobolus striate mosaic virus 1</i>) [69]
32					
33	unassigned	<i>Geminiviridae</i>	<i>Mastrevirus</i>	<i>Sporobolus striate mosaic virus 2</i>	rename species (previous name: <i>Sporobolus striate mosaic virus 2</i>) [69]
34					
35	unassigned	<i>Endornaviridae</i>	<i>Alphaendornavirus</i>	<i>Winged bean alphaendornavirus 1</i>	new species [70]
36					
37					
38	unassigned	<i>Endornaviridae</i>	<i>Betaendornavirus</i>	<i>Botrytis cinerea betaendornavirus 1</i>	new species [70]
39					
40	unassigned	<i>Bromoviridae</i>	<i>Ilarvirus</i>	<i>Ageratum latent virus</i>	new species [71]
41					
42	unassigned	<i>Bromoviridae</i>	<i>Ilarvirus</i>	<i>Privet ringspot virus</i>	new species [71]
43	unassigned	<i>Bromoviridae</i>	<i>Ilarvirus</i>	<i>Tomato necrotic streak virus</i>	new species [71]
44					
45	unassigned	<i>Luteoviridae</i>	<i>Polerovirus</i>	<i>Maize yellow mosaic virus</i>	new species [72]
46					
47					
48	unassigned	<i>Luteoviridae</i>	<i>Polerovirus</i>	<i>Pepo aphid-borne yellows virus</i>	new species [73]
49					
50	unassigned	<i>Caulimoviridae</i>	<i>Badnavirus</i>	<i>Cacao mild mosaic virus</i>	new species [74]
51					
52	unassigned	<i>Caulimoviridae</i>	<i>Badnavirus</i>	<i>Cacao yellow vein banding virus</i>	new species [74]
53					
54	unassigned	<i>Caulimoviridae</i>	<i>Badnavirus</i>	<i>Dioscorea bacilliform RT virus 1</i>	new species [74]
55					
56	unassigned	<i>Caulimoviridae</i>	<i>Badnavirus</i>	<i>Dioscorea bacilliform RT virus 2</i>	new species [74]
57					
58	unassigned	<i>Caulimoviridae</i>	<i>Badnavirus</i>	<i>Dioscorea bacilliform TR virus</i>	new species [74]
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22	unassigned	<i>Caulimoviridae</i>	<i>Badnavirus</i>	<i>Wisteria badnavirus 1</i>	new species	[74]	
23	unassigned	<i>Closteroviridae</i>	<i>Ampelovirus</i>	<i>Grapevine leafroll-associated virus 13</i>	new species	[75]	
24							
25	<i>Tymovirales</i>	<i>Tymoviridae</i>	<i>Marafivirus</i>	<i>Grapevine asteroid mosaic associated virus</i>	new species	[76]	
26							
27							
28	<i>Tymovirales</i>	<i>Tymoviridae</i>	<i>Marafivirus</i>	<i>Peach marafivirus D</i>	new species	[76]	
29	<i>Tymovirales</i>	<i>Deltaflexiviridae</i>			new family	[77]	
30							
31	<i>Tymovirales</i>	<i>Deltaflexiviridae</i>	<i>Deltaflexivirus</i>		new genus	[77]	
32	<i>Tymovirales</i>	<i>Deltaflexiviridae</i>	<i>Deltaflexivirus</i>	<i>Sclerotinia deltaflexivirus 1</i>	new (type) species	[77]	
33							
34							
35	<i>Tymovirales</i>	<i>Deltaflexiviridae</i>	<i>Deltaflexivirus</i>	<i>Soybean-associated deltaflexivirus 1</i>	new species	[77]	
36							
37	<i>Tymovirales</i>	<i>Deltaflexiviridae</i>	<i>Deltaflexivirus</i>	<i>Fusarium deltaflexivirus 1</i>	new species	[77]	
38							
39	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Potexvirus</i>	<i>Actinidia virus X</i>	new species	[78]	
40							
41	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Potexvirus</i>	<i>Pitaya virus X</i>	new species	[78]	
42	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Potexvirus</i>	<i>Vanilla virus X</i>	new species	[78]	
43							
44	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Allexivirus</i>	<i>Blackberry virus E</i>		[78]	
45							
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50	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Allexivirus</i>	<i>Arachis pintoii virus</i>	new species	[78]	
51	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Allexivirus</i>	<i>Alfalfa virus S</i>	new species	[78]	
52	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Allexivirus</i>	<i>Vanilla latent virus</i>	new species	[78]	
53	<i>Tymovirales</i>	<i>Alphaflexiviridae</i>	<i>Allexivirus</i>	<i>Vanilla latent virus</i>	new species	[78]	
54	<i>Tymovirales</i>	<i>Betaflexiviridae</i>	<i>Quinvirinae</i>	<i>Carlavirus</i>	<i>Yam latent virus</i>	new species	[78]
55							
56	<i>Tymovirales</i>	<i>Betaflexiviridae</i>	<i>Quinvirinae</i>	<i>Carlavirus</i>	<i>Sambucus virus C</i>	new species	[78]
57	<i>Tymovirales</i>	<i>Betaflexiviridae</i>	<i>Quinvirinae</i>	<i>Carlavirus</i>	<i>Sambucus virus D</i>	new species	[78]
58							
59	<i>Tymovirales</i>	<i>Betaflexiviridae</i>	<i>Quinvirinae</i>	<i>Carlavirus</i>	<i>Sambucus virus E</i>	new species	[78]
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**move species (previous position:
Tymovirales/
Alphaflexiviridae/unassigned)**

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22	Tymovirales	Betaflexiviridae	Quinvirinae	Carlavirus	<i>Atractylodes mottle virus</i>	new species [78]
23	Tymovirales	Betaflexiviridae	Quinvirinae	Carlavirus	<i>Ligustrum virus A</i>	new species [78]
24						
25	Tymovirales	Betaflexiviridae	Quinvirinae	Foveavirus	<i>Asian prunus virus 2</i>	new species [78]
26	Tymovirales	Betaflexiviridae	Trivirinae	Vitivirus	<i>Arracacha virus V</i>	new species [78]
27						
28	Picornavirales	Picornaviridae		Aalivirus		new genus [79]
29	Picornavirales	Picornaviridae		Aalivirus	<i>Aalivirus A</i>	new (type) species [79]
30	Picornavirales	Picornaviridae		Bopivirus		new genus [80]
31						
32	Picornavirales	Picornaviridae		Bopivirus	<i>Bopivirus A</i>	new (type) species [80]
33	Picornavirales	Picornaviridae		Crohivirus		new genus [81]
34						
35	Picornavirales	Picornaviridae		Crohivirus	<i>Crohivirus A</i>	new species [81]
36	Picornavirales	Picornaviridae		Crohivirus	<i>Crohivirus B</i>	new (type) species [81]
37						
38	Picornavirales	Picornaviridae		Enterovirus	<i>Enterovirus K</i>	new species [82]
39	Picornavirales	Picornaviridae		Enterovirus	<i>Enterovirus L</i>	new species [82]
40						
41	Picornavirales	Picornaviridae		Kunsagivirus	<i>Kunsagivirus B</i>	new species [83]
42	Picornavirales	Picornaviridae		Kunsagivirus	<i>Kunsagivirus C</i>	new species [83]
43	Picornavirales	Picornaviridae		Megrivirus	<i>Megrivirus A</i>	rename (type) species (previous name: <i>Melegrivirus A</i>) [84]
44						
45	Picornavirales	Picornaviridae		Megrivirus	<i>Megrivirus B</i>	new species [84]
46	Picornavirales	Picornaviridae		Megrivirus	<i>Megrivirus C</i>	new species [84]
47						
48	Picornavirales	Picornaviridae		Megrivirus	<i>Megrivirus D</i>	new species [84]
49	Picornavirales	Picornaviridae		Megrivirus	<i>Megrivirus E</i>	new species [84]
50						
51	Picornavirales	Picornaviridae		Orivirus		new genus [85]
52	Picornavirales	Picornaviridae		Orivirus	<i>Orivirus A</i>	new (type) species [85]
53						
54	Picornavirales	Picornaviridae		Shanbavirus		new genus [86]
55	Picornavirales	Picornaviridae		Shanbavirus	<i>Shanbavirus A</i>	new (type) species [86]
56	unassigned	Flaviviridae		Pestivirus	<i>Pestivirus A</i>	rename (type) species (previous name: <i>Bovine viral diarrhea virus 1</i>) [87]
57						
58	unassigned	Flaviviridae		Pestivirus	<i>Pestivirus B</i>	rename species (previous name: <i>Bovine viral diarrhea virus 2</i>) [87]
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22	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus C</i>	rename species (previous name: <i>Classical swine fever virus</i>) [87]
23					
24	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus D</i>	rename species (previous name: <i>Border disease virus</i>) [87]
25					
26	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus E</i>	new species [87]
27	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus F</i>	new species [87]
28					
29	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus G</i>	new species [87]
30	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus H</i>	new species [87]
31	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus I</i>	new species [87]
32					
33	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus J</i>	new species [87]
34	unassigned	<i>Flaviviridae</i>	<i>Pestivirus</i>	<i>Pestivirus K</i>	new species [87]
35					
36	Picornavirales	<i>Polycipiviridae</i>			new family [88]
37	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>		new genus [88]
38					
39	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Solenopsis invicta virus 2</i>	new (type) species [88]
40	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Solenopsis invicta virus 4</i>	new species [88]
41	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Lasius niger virus 1</i>	new species [88]
42					
43	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Shuangao insect virus 8</i>	new species [88]
44	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Myrmica scabrinodis virus 1</i>	new species [88]
45					
46	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Lasius neglectus virus 1</i>	new species [88]
47					
48	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Monomorium pharaonis virus 1</i>	new species [88]
49					
50	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Lasius neglectus virus 2</i>	new species [88]
51					
52	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Linepithema humile virus 2</i>	new species [88]
53					
54	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Monomorium pharaonis virus 2</i>	new species [88]
55					
56	Picornavirales	<i>Polycipiviridae</i>	<i>Sopolycivirus</i>	<i>Formica exsecta virus 3</i>	new species [88]
57					
58	Picornavirales	<i>Polycipiviridae</i>	<i>Hupolycivirus</i>		new genus [88]
59	Picornavirales	<i>Polycipiviridae</i>	<i>Hupolycivirus</i>	<i>Hubei hupolycivirus</i>	new (type) species [88]
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<i>Picornavirales</i>	<i>Polycipiviridae</i>	<i>Chipolycivirus</i>		new genus	[88]
<i>Picornavirales</i>	<i>Polycipiviridae</i>	<i>Chipolycivirus</i>	<i>Chironomus riparius virus 1</i>	new (type) species	[88]
<i>Picornavirales</i>	<i>Polycipiviridae</i>	<i>Chipolycivirus</i>	<i>Hubei chipolycivirus</i>	new species	[88]