



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

Please try to keep related proposals within a single document; you can copy the modules to create more than one genus within a new family, for example.

MODULE 1: **TITLE, AUTHORS, etc**

Code assigned:	2015.004a-fM	(to be completed by ICTV officers)			
Short title: Create one new genus, <i>Socyvirus</i> , in the family <i>Nyamiviridae</i> , order <i>Mononegavirales</i> (e.g. 6 new species in the genus <i>Zetavirus</i>)					
Modules attached (modules 1 and 10 are required)	1 <input checked="" type="checkbox"/> 6 <input type="checkbox"/>	2 <input type="checkbox"/> 7 <input type="checkbox"/>	3 <input checked="" type="checkbox"/> 8 <input checked="" type="checkbox"/>	4 <input type="checkbox"/> 9 <input type="checkbox"/>	5 <input type="checkbox"/> 10 <input checked="" type="checkbox"/>

Author(s):

ICTV *Nyamiviridae* Study Group

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

A list of study groups and contacts is provided at <http://www.ictvonline.org/subcommittees.asp> . If in doubt, contact the appropriate subcommittee chair (fungal, invertebrate, plant, prokaryote or vertebrate viruses)

ICTV *Nyamiviridae* SG

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

Date first submitted to ICTV:

June 2015

Date of this revision (if different to above):

August 2015

ICTV-EC comments and response of the proposer:

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MODULE 3: NEW GENUS

creating a new genus

Ideally, a genus should be placed within a higher taxon.

Code	2015.004aM	(assigned by ICTV officers)
To create a new genus within:		
Subfamily:		Fill in all that apply. • If the higher taxon has yet to be created (in a later module, below) write “ (new) ” after its proposed name. • If no family is specified, enter “ unassigned ” in the family box
Family:	<i>Nyamiviridae</i>	
Order:	<i>Mononegavirales</i>	

naming a new genus

Code	2015.004bM	(assigned by ICTV officers)
To name the new genus: <i>Socyvirus</i>		

Assigning the type species and other species to a new genus

Code	2015.004cM	(assigned by ICTV officers)
To designate the following as the type species of the new genus		
<i>Soybean cyst nematode socyvirus</i> (new name)		Every genus must have a type species. This should be a well characterized species although not necessarily the first to be discovered
<p>The new genus will also contain any other new species created and assigned to it (Module 2) and any that are being moved from elsewhere (Module 7b). Please enter here the TOTAL number of species (including the type species) that the genus will contain:</p> <p>1</p>		

Reasons to justify the creation of a new genus:

Additional material in support of this proposal may be presented in the Appendix, Module 9

The soybean cyst nematode - 1 (SbCNCV-1) genome of 11,359 nt was assembled from a nematode transcriptome (Bekal et al., 2011). The virus has been proposed and accepted as a representative of the (temporary and free-floating) species *Soybean cyst nematode virus* in the currently monogeneric family *Nyamiviridae* due to highest sequence similarity with the other members of this family (genus *Nyavirus*) (Kuhn et al., 2013; ICTV ratifications of 2013). However, SbCNCV-1 differs from members of the genus *Nyavirus* in several aspects: 1) The SbCNCV-1 genome contains 5 ORFs in the anti-genomic sense in the order 3'- nucleoprotein (N) – phosphoprotein (P) – matrix protein (M) – glycoprotein (G) and RdRP (L), whereas nyaviruses contain one additional ORF between the N and G coding sequences (Bekal et al., 2011, Rogers et al., 2014). 2) Phylogenetic analysis using a conserved region of the RdRP places SbCNCV-1 in a separate sister clade to the nyaviruses (Fig. 1). 3) Conserved transcription initiation motifs upstream of the ORFs show high sequence similarity between the nyaviruses, but not with SbCNCV-1 (Rogers et al., 2014). 4) The host of SbCNCV-1 and the nyaviruses are quite distinct with SbCNCV-1 isolated from a plant-parasitic nematode, while all three classified nyaviruses (Midway virus, Nyamanini virus, Sierra Nevada virus) are associated with ticks.

SbCNCV-1 belongs to the family *Nyamiviridae*, but is distinct from the members of the genus *Nyavirus*. Therefore, creating of the new genus *Socyvirus* for this virus is proposed to end the free-

floating status of the species.

Origin of the new genus name:

Sigil for soybean cyst nematode virus: socy

Reasons to justify the choice of type species:

Only one species known

Species demarcation criteria in the new genus:

If there will be more than one species in the new genus, list the criteria being used for species demarcation and explain how the proposed members meet these criteria.

N/A

MODULE 7: **REMOVE and MOVE**

Use this module whenever an existing taxon needs to be removed:

- *Either* to abolish a taxon entirely (when only part (a) needs to be completed)
- *Or* to move a taxon and re-assign it e.g. when a species is moved from one genus to another (when BOTH parts (a) and (b) should be completed)

Part (a) taxon/taxa to be removed or moved

Code	2015.004dM	(assigned by ICTV officers)		
To remove the following taxon (or taxa) from their present position:				
<i>Soybean cyst nematode socyvirus</i> (new name)				
The present taxonomic position of these taxon/taxa:				
Genus:	unassigned	Fill in all that apply.		
Subfamily:				
Family:	<i>Nyamiviridae</i>			
Order:	<i>Mononegavirales</i>			
<p>If the taxon/taxa are to be abolished (i.e. not reassigned to another taxon) write "yes" in the box on the right</p> <table style="width: 100%; border: none;"> <tr> <td style="width: 75%; border: none;"></td> <td style="width: 25%; border: none; border-left: 1px solid black;"></td> </tr> </table>				
Reasons to justify the removal:				
Explain why the taxon (or taxa) should be removed				
Please refer to 2015.004dM				

Part (b) re-assign to a higher taxon

Code	2015.004eM	(assigned by ICTV officers)
To re-assign the taxon (or taxa) listed in Part (a) as follows:		
Genus:	<i>Socyvirus</i> (new)	Fill in all that apply. <ul style="list-style-type: none"> • If the higher taxon has yet to be created write "(new)" after its proposed name and complete relevant module to create it. If no genus is specified, enter "unassigned" in the genus box.
Subfamily:		
Family:	<i>Nyamiviridae</i>	
Order:	<i>Mononegavirales</i>	

Reasons to justify the re-assignment:

- If it is proposed to re-assign species to an existing genus, please explain how the proposed species differ(s) from all existing species.
 - If species demarcation criteria (see module 3) have previously been defined for the genus, explain how the new species meet these criteria.
 - If criteria for demarcating species need to be defined (because there will now be more than one species in the genus), please state the proposed criteria.
- Provide accession numbers for genomic sequences
- Further material in support of this proposal may be presented in the Appendix, Module 9

Please refer to 2015.004dM

MODULE 8: **RENAME**

Use this module to change the name of one or more existing taxa (but note that stability of nomenclature is encouraged wherever possible). Insert extra lines in the table if needed.

Renaming one or more taxa

Code	2015.004fM	(assigned by ICTV officers)
To rename the following taxon (or taxa):		
Current name		Proposed name
<i>Soybean cyst nematode virus</i>		<i>Soybean cyst nematode socyvirus</i>

Reasons to justify the renaming:

Explain why the taxon (or taxa) should be renamed

Classification of the currently unassigned, free-floating species in the family *Nyamiviridae*, in the new genus *Socyvirus* (Module 3) requires a change of the species name.

MODULE 10: **APPENDIX**: supporting material

additional material in support of this proposal

References:

- Bekal, S., Domier, L.L., Niblack, T.L., Lambert, K.N., 2011. Discovery and initial analysis of novel viral genomes in the soybean cyst nematode. *J. Gen. Virol.* 92, 1870-1879.
- Kuhn, J.H. et al. 2013. *Nyamiviridae*: Proposal for a new family in the order *Mononegavirales*. *Arch. Virol.* 158, 2209-2226.
- Rogers, M.B., Cui, L., Fitch, A., Popov, V., Travassos da Rosa, A.P.A., Vasilakis, N., Tesh, R.B., Ghedin, E., 2014. Whole genome analysis of Sierra Nevada virus, a novel mononegavirus in the family *Nyamiviridae*. *Am. J. Trop. Med. Hyg.* 91, 159-164.

Annex:

Include as much information as necessary to support the proposal, including diagrams comparing the old and new taxonomic orders. The use of Figures and Tables is strongly recommended but direct pasting of content from publications will require permission from the copyright holder together with appropriate acknowledgement as this proposal will be placed on a public web site. For phylogenetic analysis, try to provide a tree where branch length is related to genetic distance.

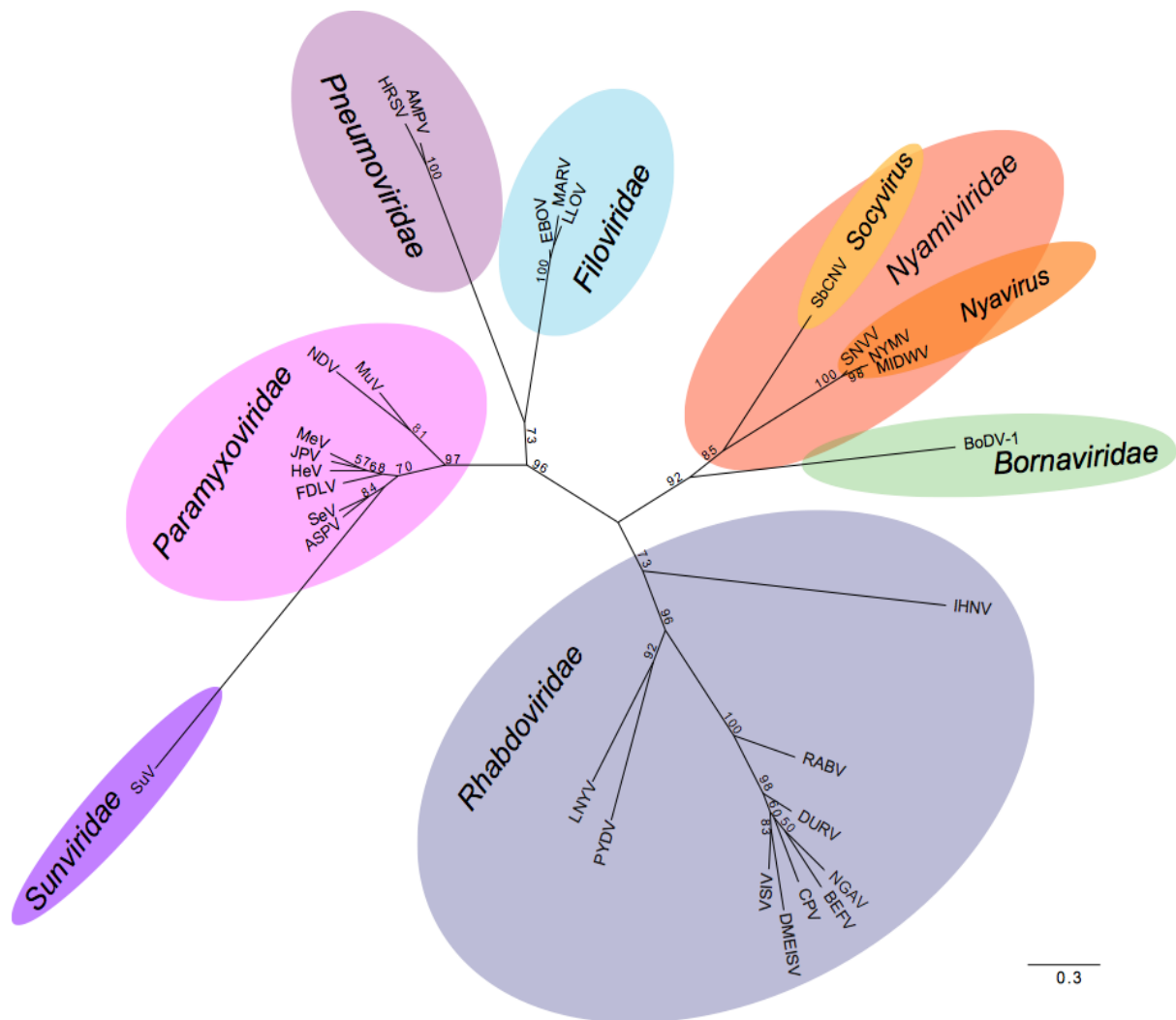


Figure 1. Maximum likelihood phylogenetic tree of mononegavirus RdRp protein sequences. The tree was generated with RAXML-HPC, using the GTR substitution model, rates across sites modeled on a gamma distribution and 1,000 bootstrap replicates. Nyamiviruses: SbCNV, soybean cyst nematode virus 1; SNVV, Sierra Nevada virus; NYMV, Nyamanini virus; MIDWV, Midway virus; bornaviruses: BoDV-1, Borna disease virus; rhabdoviruses: IHNV, infectious hematopoietic necrosis virus; RABV, rabies virus; DURV, Durham virus; NGAV, Ngaingan virus; BEFV, bovine ephemeral fever virus; CPV, Coastal Plains virus; DMelSV, Drosophila melanogaster sigmavirus; VSV, vesicular stomatitis Indiana virus; PYDV, potato yellow dwarf virus; LNYV, lettuce necrotic yellows virus; sunviruses: SuV, Sunshine Coast virus; paramyxoviruses: ASPV, Atlantic salmon paramyxovirus; SeV, Sendai virus; FDLV, Fer-de-Lance virus; HeV, Hendra virus; JPV, J paramyxovirus; MeV, Measles virus; NDV, Newcastle disease virus; MuV, Mumps virus; pneumoviruses: HRSV, human respiratory syncytial virus; AMPV, avian metapneumovirus; filoviruses: EBOV, Ebola virus; MARV, Marburg virus; LLOV, Lloviu virus (from Rogers *et al.*, 2014, modified)