

Q&A for ICTV Webinar on Finding Virus Information (March 11, 2025)

Question	Asker Name	Answer	Answer Name
Hello, thank you for this webinar, is it possible to see the ancient names (non-binomial) in the master species list?	Eugenie Hebrard	We provide historical master species list spreadsheets on our website here: https://ictv.global/msl	Donald Dempsey
Hello, thank you for this webinar, is it possible to see the ancient names (non-binomial) in the master species list?	Eugenie Hebrard	You can also browse past release here: https://ictv.global/taxonomy/history	Elliot Lefkowitz
Hello, thank you for this webinar, is it possible to see the ancient names (non-binomial) in the master species list?	Eugenie Hebrard	You can also search for a species name in the taxonomy browser and then 1) click on the "history" button in the search results to see the history of that taxon, or 2) click on the right side of the taxon in the taxonomic hierarchy to view the history. https://ictv.global/taxonomy	Donald Dempsey
Hello, working on AREPAVIRUSES in Arecanut crop, two viruses reported from China during 2018&2019 but in INDIA' from 2023 onwards these two viruses appeared on Arecanut but still not yet reported insect vectors? How did they spread? Two viruses from Genus AREPAVIRUS are completely new ones then how did they evolve?	Shreeshail Sonyal	You might try and look in the ICTV Report for the potyviridae: https://ictv.global/report/chapter/potyviridae/potyviridae	Elliot Lefkowitz
Hello, working on AREPAVIRUSES in Arecanut crop, two viruses reported from China during 2018&2019 but in INDIA' from 2023 onwards these two viruses appeared on Arecanut but still not yet reported insect vectors? How did they spread? Two viruses from Genus AREPAVIRUS are completely new ones then how did they evolve?	Shreeshail Sonyal	already referred to this one	Shreeshail Sonyal
I am from India is there any possibility new VIRUS evolution shares genomes from closely related genus?	Shreeshail Sonyal	live answered	Elliot Lefkowitz

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Is it possible to check whether a particular virus species has more than one host in the spreadsheet? Like for example Tomato Leaf Curl New Delhi virus originally identified from tomato now is reported for more than 10 different species.	Sunil Kumar	The VMR provides a very high-level indication of the virus host. It will list multiple hosts as warranted (e.g. vertebrate/invertebrate)	Elliot Lefkowitz
Is it possible to check whether a particular virus species has more than one host in the spreadsheet? Like for example Tomato Leaf Curl New Delhi virus originally identified from tomato now is reported for more than 10 different species.	Sunil Kumar	You can search for host in the NCBI Virus here: https://www.ncbi.nlm.nih.gov/labs/virus/vssi/#/	Janos Agoston
I noticed that some classifications include a class but no order, yet they have a family. Similarly, some taxa only have lower-level classifications without certain intermediate ranks. Why certain taxonomic ranks are missing in the middle?	Jihye Shin	This is at the discretion of the ICTV Study Group or the person submitting the proposal for a new taxon. The only required rank is for a species to be classified into a genus. All higher ranks are optional.	Elliot Lefkowitz
I noticed that some classifications include a class but no order, yet they have a family. Similarly, some taxa only have lower-level classifications without certain intermediate ranks. Why certain taxonomic ranks are missing in the middle?	Jihye Shin	Does this mean that for a newly identified virus, knowing its genus is the most important, rather than knowing higher-level classifications like realm, kingdom, or phylum?	Jihye Shin
I noticed that some classifications include a class but no order, yet they have a family. Similarly, some taxa only have lower-level classifications without certain intermediate ranks. Why certain taxonomic ranks are missing in the middle?	Jihye Shin	Species and genus are the minimum otherwise we cannot give the species a name. If new higher taxa need to be created, this can be done, but they would need demarcation criteria to be defined. Sometimes, that requires additional research, so then the decision is made to formalise the taxonomy without filling in all the ranks.	Evelien Adriaenssens

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What is the appropriate percentage of identity to assume that they are the same species?	Jose Manuel Cambron Crisantos	This varies between taxa. The ICTV Report chapter for a family should have this information as will the proposal files that have been submitted for a new taxon.	Elliot Lefkowitz
One more question. Does ICTV maintain any official record wherein we can access different strains of same virus?	Sunil Kumar	The VMR has some limited information on this.	Elliot Lefkowitz
Hello, Thank you for your presentation. Is there a new threshold for demarcation of bipartite begomoviruses? Example: cassava mosaic virus	Jean Eudes Beugre	This would be present in the most recent proposal submitted for new begomovirus species.	Elliot Lefkowitz
Hello, Thank you for your presentation. Is there a new threshold for demarcation of bipartite begomoviruses? Example: cassava mosaic virus	Jean Eudes Beugre	Specifically for the DNA-B component because I couldn't find any information regarding the demarcation of the B component.	Sunil Kumar
Is it correct to assume that the abolition of a species comes into effect from the latest version of the master list of virus species, or at what point should a species be considered abolished in order to no longer be considered in any standard?	Jose Manuel Cambron Crisantos	At the time of publication of the new taxonomy as indicated in the MSL.	Elliot Lefkowitz
How does new virus evolution occur? They don't exist earlier....but 2023 onwards become pathogenic on crop plants.	Shreeshail Sonyal	Generally, the ICTV tracks evolution (new species) in a time frame that encompasses decades, centuries, or more. The real-time evolution of a virus causing disease happens too rapidly to allow classification by the ICTV.	Elliot Lefkowitz
Does ICTV automatically take bacteriophage genomes submitted to NCBI or do we need to submit a proposal for a novel phage?	Vandan Nagar	In some cases, members of ICTV study groups may include new phage genomes in their larger analyses and submit a taxonomy proposal, but this is not automatic. You are always welcome to contact relevant study groups or subcommittee chair to submit a proposal to update the taxonomy with new taxa represented by the new genome.	Evelien Adriaenssens

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Does ICTV automatically take bacteriophage genomes submitted to NCBI or do we need to submit a proposal for a novel phage?	Vandan Nagar	What are the requirements for suggesting new genus or higher taxa?	Vandan Nagar
Does ICTV automatically take bacteriophage genomes submitted to NCBI or do we need to submit a proposal for a novel phage?	Vandan Nagar	The demarcation criteria are specific to the different taxa. You can find the information in relevant taxonomy proposals or in some of the relevant publications authored by the subcommittee or study group. If you are talking about dsDNA tailed phages, they are in the class Caudoviricetes and a good place to start are these publications: “A Roadmap for Genome-Based Phage Taxonomy”, 2021 and “Abolishment of morphology-based taxa and change to binomial species names: 2022 taxonomy update of the ICTV bacterial viruses subcommittee” 2023	Evelien Adriaenssens
Does ICTV automatically take bacteriophage genomes submitted to NCBI or do we need to submit a proposal for a novel phage?	Vandan Nagar	Thank you... Can we first submit our manuscript and genus taxonomy proposal can be made later on?	Vandan Nagar
Does ICTV automatically take bacteriophage genomes submitted to NCBI or do we need to submit a proposal for a novel phage?	Vandan Nagar	Yes, the phage genome (or any virus genome) needs to be publicly available before it can be included in taxonomy.	Evelien Adriaenssens
Are there plans to make these tools available through an API?	Nikhita Puthuveetil	We plan to make many of our tools and resources available as RESTful web services within the year (hopefully sooner).	Donald Dempsey
Are there plans to make these tools available through an API?	Nikhita Puthuveetil	That'll be great. Will the API access include taxon history data as well?	Nistara Randhawa
Are there plans to make these tools available through an API?	Nikhita Puthuveetil	Yes. And the API results will be provided as JSON.	Donald Dempsey
Are you sure/confident that the ICTV website will still be available and open to non-US members in the future?	Eugenie Hebrard	The ICTV is an international organization. It owns the web site and database. If our US funding were to go away, the web site and database would still exist and be available to other Executive Committee members to update.	Elliot Lefkowitz

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Are you sure/confident that the ICTV website will still be available and open to non-US members in the future?	Eugenie Hebrard	Good news ! Meaning that the database could not be switched off or closed?	Eugenie Hebrard
Are you sure/confident that the ICTV website will still be available and open to non-US members in the future?	Eugenie Hebrard	That's correct.	Donald Dempsey
In the Genus AREPAVIRUS two viruses namely 1) Areca palm necrotic Ring spot virus and 2) Areca palm necrotic spindle spot virus are not reported before 2018 & 2019 on any crop plants or weeds, but recently they are causing serious pathogenic activity.....where did they come from?	Anonymous Attendee	This is more of a research question that will require a much more detailed investigation than what can be done on the ICTV web site.	Elliot Lefkowitz
Hello, thank you for your invitation and presentation. I see that you are focusing on animal viruses more than other types of viruses. I hope that next time you will talk about bacteriophages. I see that it is very important to do a special seminar about bacteriophage as well as I hope that the team of ICTV will try to create a platform for phylogenetic tree.	Ramy Qabel	The ICTV does classify all viruses. But since my group composed of animal virologists, we tend to use animal virus examples. Sorry about this. But, you can be assured that everything we have shown will work just as well with bacterial, fungal, plant, etc. viruses as well.	Elliot Lefkowitz
Do you have any plans to do a webinar on viral metagenomics, sequencing and analysis?	Hiwa Ahmad	This goes beyond the remit of the ICTV. You might want to check out the Bacterial-Viral Bioinformatics Resource Center, https://bv-brc.org .	Elliot Lefkowitz
Can I get a copy of those presentations?	Vickneshwaran Muthu	https://ictv.global/webinar/video_20250311	Elliot Lefkowitz
How may we get accustomed to the name Cardiovirus theileri for a virus that was called 'poliovirus' in the past ? It sounds difficult!	Tesfaye Kassa	It might be a challenge, especially if you've used the older name for a long time. Hopefully, the Find the Species tool will be helpful if you need a reminder!	Donald Dempsey
I've seen the webinar is being recorded. Will it be available at the website afterwards?	Helena Cortes Martins	Yes	Eden Black
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I've seen the webinar is being recorded. Will it be available at the website afterwards?	Helena Cortes Martins	https://ictv.global/	Nistara Randhawa
Why only animal viruses are more concentrated here ? Why not crop plants viruses?	Anonymous Attendee	Please see Elliot's response to a similar question below:	Steve Powell
Why only animal viruses are more concentrated here ? Why not crop plants viruses?	Anonymous Attendee	The ICTV does classify all viruses. But since my group composed of animal virologists, we tend to use animal virus examples. Sorry about this. But, you can be assured that everything we have shown will work just as well with bacterial, fungal, plant, etc. viruses as well.	Steve Powell
Could you provide DOIs for species? - something that would provide continuity as the names change	Joseph Hughes	We are looking into this. For now, we have DOIs for the MSL and VMR through Zenodo: https://zenodo.org/communities/ictv	Elliot Lefkowitz
something similar to taxid on NCBI.	Joseph Hughes	The ICTV has its own ICTV_ID provided in the MSL	Elliot Lefkowitz
Can you show where on the website the recording will be posted? or can someone provide, in the chat, the filepath to get there?	Anonymous Attendee	https://ictv.global/webinar/video	Tiago Henriques
Can you show where on the website the recording will be posted? or can someone provide, in the chat, the filepath to get there?	Anonymous Attendee	It can be found under the help tab at the top of the website.	Eden Black
How is a new virus GENUS proposed? Based on which property?	Anonymous Attendee	This varies according to the defined demarcation criteria at the genus level of a particular family. These criteria are listed in past proposals as well as in online ICTV Report chapters.	Elliot Lefkowitz
Thanks for this valuable webinar... My question is if this binomial includes viroids!!	Raed Alkowni	You're welcome! We have the families Pospiviroidae and Avsunviroidae available in our taxonomy browser, and all of their species use binomial nomenclature.	Donald Dempsey
Can NCBI viral sequences /accession numbers be used to locate virus species names in ICTV website?	Indranil Dasgupta	live answered	Donald Dempsey

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Most of the time I found demarcation criteria information is a little bit complex for understanding. Is it possible to make it more clear?	Serkan Önder	We are working on compiling and organizing demarcation criteria to make it more understandable and present it in a tabular form on the website.	Steve Powell
Did you plan to add tools / data about inter-species recombination and its impact on taxonomy ?	Eugenie Hebrard	What kind of tools do you have in mind?	Donald Dempsey
May be a little off topic, but please answer if you have time. Where can I find some educational resources for the current basis of taxonomic classification of a virus (and what historically has been)?	Sheikh Rajiuddin	Under the "About" dropdown list on the website, you will find "About Taxonomic Classification", which provides a brief overview. There is also a list of helpful references below the article that should provide more detail.	Steve Powell
Can we have access to phylogeny trees on ICTV? maybe I missed this point	Cica Urbino	live answered	Logan Mims
Is there is a particular way ICTV wants us citing images created with the Visual Taxonomy Browser?	Francisco Ochoa-Corona	live answered	Logan Mims
Hello! Why are there discrepancies in binomial virus species naming? Like Cucumber mosaic virus has a species name Cucumovirus CMV, same with Polerovirus. But for example tomato spotted wilt virus has a species name Othotospovirus tomatomaculae, same with Potyviridae. Thank you!	Janos AGOSTON	I'm not sure I understand the question. Can you elaborate?	Donald Dempsey
Based on what do you as ICTV re-classify the viruses again?	Hiwa Ahmad	Viruses are usually reclassified based on updated demarcation criteria, which is often specific to the family, genus, etc.	Donald Dempsey
It'll be helpful to link IDs across different MSLs if possible to connect taxon history urls across MSL releases. Thanks for these great tools!	Nistara Randhawa	You're welcome! The taxon's ICTV ID is consistent/constant across multiple MSL releases.	Donald Dempsey

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Can the ICTV website be used to quickly locate latest changes in virus taxonomy. Which are the families/genera that have changed?	Indranil Dasgupta	Open the latest MSL and go to the last change column.	Steve Powell
What is the position of ICTV regarding new species or genera found through data mining?	Anna Maria Vaira	New taxa based on viruses known only from their sequence are allowed, however, there is a requirement for the genomes to be complete (or at minimum coding complete).	Evelien Adriaenssens
How can I find out how many viruses have fungi as hosts?	Indranil Dasgupta	The VMR can be used for this. It contains host information that you can filter on, and then filter on "E" species records. That will give all fungal virus species.	Elliot Lefkowitz
What about to search (now or in a future) a virus or viral group by an electron microcopy image (similar to google lens)?	Laureano Cuevas	Sounds like you would like a tool that lets you submit an electron microscopy image and return the correct taxon. Is that right?	Donald Dempsey
What about to search (now or in a future) a virus or viral group by an electron microcopy image (similar to google lens)?	Laureano Cuevas	Yes, that is	Laureano Cuevas
Earlier it was reported that Fungi can transmit viruses or act as vectors for plant viruses, but recently there are no such reports that Fungi can actually be vectors for plant viruses?	Anonymous Attendee	If you think information provided by the ICTV needs updating, please send us an email and we will look into it. Thanks.	Elliot Lefkowitz
If we want to cite the ICTV in the publication, please have you a your own citation?	Hiwa Ahmad	There are a number of citations that can be used. The web site itself can be cited. Each year we publish a summary of new taxa in a journal. See these listed in our News reports: https://ictv.global/news . PMID: 37141106 is a good reference.	Elliot Lefkowitz
Yes, so sometimes they give the genus name, like Cucumovirus, and the epithet is just the acronym: Cucumovirus CMV. but for other genera they give a proper binomial name, like Potyvirus lilimaculæ. Why is the naming principle different?	Janos Agoston	Good question. I think this is up to the individual study group. The choice of the species epithet is up to the Study Group and the person preparing the proposal for a new (or renamed) species.	Donald Dempsey

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What about human and animal viruses with substantial recombinations, how does that affect the taxonomy?	Anthony Ike	It is a problem similar to what we discussed with bacterial viruses. In general, the approach used for dealing with recombinant or reassortant genomes is up to each family-specific ICTV Study Group. They will propose the tools to use and the region(s) of the genome to choose to obtain the best phylogenetic history possible.	Elliot Lefkowitz
Same with Polerovirus, Polerovirus TUYV is the scientific name for turnip yellows virus	Janos Agoston	As for cucumoviruses, the choice of the species epithet is up to the Study Group and the person preparing the proposal for a new (or renamed) species.	Elliot Lefkowitz