Virus Taxonomy – Houston 2002

M. A. Mayo

Scottish Crop Research Institute, Dundee, U.K.

The 30th meeting of the Executive Committee of the International Committee on Taxonomy of Viruses (ICTV) was held at Baylor College of Medicine, Texas Medical Center, Houston, Texas on the 7th and 8th of March of this year. In addition to the regular reviews of ICTV circumstances and procedures, there were three main items of business. These were taxonomic proposals, the ICTV database and ICTV activities at the coming International Virology Congress.

The taxonomic proposals discussed are listed below. Most of these had been available for public inspection for some time on the ICTVnet public message board. The proposals are now being examined by the full ICTV membership who will vote to accept or reject them. Those accepted will be reported in future notes in *Virology Division News*.

The taxonomic proposals were:

Vertebrate Virus Sub-Committee proposals

Family *Caliciviridae*

1. Assign the name *Norovirus* to the genus provisionally described as "Norwalk-like viruses".
2. Assign the name *Sapovirus* to the genus provisionally described as "Sapporo-like viruses".

Family *Bunyaviridae*

1. Change the name of the genus *Bunyavirus* to *Orthobunyavirus.*

New family *Roniviridae*

1. Create a new genus, typified by *Gill-associated virus*.
2. Name the genus *Okavirus.*
3. Assign *Gill-associated virus* as the type species of genus *Okavirus.*
4. Create a new family within the order *Nidovirales* typified by genus *Okavirus.*
5. Name the new family *Roniviridae.*

Family *Togaviridae*

1. Add *Salmon pancreas disease virus* (SPDV) and *Trocara virus* (TROV) to the list of species in genus *Alphavirus*.

Family *Orthomyxoviridae*

1. Approve *Infectious salmon anemia virus* as a species in family *Orthomyxoviridae.*
2. Create a new genus to contain species resembling *Infectious salmon anemia virus.*
3. Name the new genus *Isavirus.*
4. Nominate *Infectious salmon anemia virus* as the type species of genus *Isavirus.*

Family *Paramyxoviridae*

1. Create a new genus to contain the avian parainfluenza viruses, moved from the genus *Rubulavirus.*
2. Name the new genus *Avulavirus* – from <u>Av</u>ian Rub<u>ula</u> virus.
3. Designate *Newcastle disease virus* as the type species.
4. Create a genus in subfamily *Paramyxovirinae* typified by *Hendra virus* and *Nipah virus.*
5. Name the genus created in 4, *Henipavirus.*
6. Nominate *Hendra virus* as the type species of the genus *Henipavirus.*

Family *Rhabdoviridae*

1. Elevate *Snakehead rhabdovirus* (SHRV) from a tentative species to a definitive species in genus *Novirhabdovirus.*

Family *Picornaviridae*

1. Assign Ljungan virus to a new species, *Ljungan virus*, in genus *Parechovirus.*

Family *Comoviridae*

1. Rename 'Black currant reversion associated virus', *Black currant reversion virus.*

Family *Geminiviridae*

1. Add *Sugarcane streak Egypt virus* (SSEV) and *Sugarcane streak Reunion virus* (SSRV) to the genus *Mastrevirus.*
2. Rename BCTV-Worland as *Beet mild curly top virus* (BMCTV) and BCTV-CFH as *Beet severe curly top virus* (BSCTV), and include BMCTV and BSCTV as new species in the genus *Curtovirus.*

New family *Nanoviridae*

1. Remove the assigned species *Banana bunchy top virus* and the tentative species Coconut foliar decay virus from the genus *Nanovirus.*
2. Retain Coconut foliar decay virus as a tentative species in the family, but unassigned to any genus.

3. Establish a family *Nanoviridae* typified by genus *Nanovirus.*
4. Create a genus typified by *Banana bunchy top virus.*
5. Name the new genus *Babuvirus.*
6. Recognize *Banana bunchy top virus* as the type species of the genus *Babuvirus.*

Family *Pospiviroidae*

1. Add *Tomato chlorotic dwarf viroid* (TCDVd) as a new species of the genus *Pospiviroid* (Family *Pospiviroidae*).

Genus *Umbravirus*

1. Delete *Bean yellow vein banding virus* (BYVBV) from the list of species in the genus *Umbravirus.*

Family *Luteoviridae*

1. Classify *Sugarcane yellow leaf virus* (ScYLV) as an unassigned species in the family *Luteoviridae.*
2. Classify *Cereal yellow dwarf virus*-RPV-Mex1 as a virus species different from *Cereal yellow dwarf virus*-RPV-NY, and to rename it *Cereal yellow dwarf virus*-RPS.
3. Add *Beet chlorosis virus,* as a species to the genus *Polerovirus.*
4. Remove *Strawberry mild yellow edge associated virus* from family *Luteoviridae.*

New genus *Maculavirus*

1. Establish a new genus of plant viruses with monopartite, positive-sense, single-stranded RNA.
2. Name the novel genus *Maculavirus.*
3. Designate *Grapevine fleck virus* (GFkV) as the type species of the genus.

Genus *Tobamovirus*

1. Recognise *Zucchini green mottle mosaic virus* (ZGMMV) and *Cucumber fruit mottle mosaic virus* (CFMMV) as new species in the genus *Tobamovirus.*

Family *Closteroviridae*

1. Establish a new genus within the family *Closteroviridae* comprising mealybug-transmitted species with monopartite ssRNA genomes.
2. Name the genus *Ampelovirus.*
3. Designate the type species of the genus *Ampelovirus Grapevine leafroll-associated virus 3* (GLRaV-3).
4. Assign: (i) *Pineapple mealybug wilt-associated virus 1* (PMWaV-1), *Pineapple mealybug wilt-associated virus 1* (PMWaV-2), *Grapevine leafroll-associated virus 1 (GLRaV-1)* and *Little cherry virus 2* (LChV-2) to the genus *Ampelovirus*, as definitive species; (ii) Grapevine leafroll-associated virus 4, 5 and 8 (GLRaV-4, GLRaV-5, GLRaV-8) and Plum bark necrosis and stem pitting-associated virus (PBNSPaV) to the genus *Ampelovirus* as tentative species;

5. Assign Potato yellow vein virus (PYVV) to the genus *Crinivirus* as a tentative species.
6. Give *Olive leaf yellowing-associated virus* (OLYaV) the status of an unassigned species in the family *Closteroviridae.*
7. Give Little cherry virus 1 (LChV-1) and *Grapevine leafroll-associated virus 7* (GLRaV-7) the status of unassigned species in the family *Closteroviridae.*
8. Give *Megakepasma mosaic virus* (MegMV) and *Alligatorweed stunting virus* (AWSV) the status of unassigned species in the family *Closteroviridae.*
9. Give Beet pseudo-yellows virus and Diodia vein chlorosis virus the status of tentative species in the genus *Crinivirus.*

Genus *Trichovirus*

1. Add *Peach mosaic virus* (PMoV) and *Cherry mottle leaf virus* (ChMLV) as definitive species in the genus *Trichovirus*.

New family *Tymoviridae*

1. Establish a new family to accomodate the unassigned genera *Tymovirus, Marafivirus*, and *Maculavirus*.
2. Name the family *Tymoviridae*.

Genus *Foveavirus*

1. Add *Apricot latent virus* (ApLV) as a definite species and *Cherry necrotic rusty mottle virus* (CNRMV) as a tentative species in the genus *Foveavirus*.

Invertebrate Virus Sub-committee Proposals

New family *Nimaviridae*

1. Create a genus typified by *White spot syndrome virus 1*.
2. Name the genus created in (1), *Whispovirus*.
3. Nominate *White spot syndrome virus 1* as the type species of the genus created in (1).
4. Create a family typified by the genus created in (1).
5. Name the family created in (4), *Nimaviridae*.

Family *Baculoviridae*

1. Add *Agrotis ipsilon nucleopolyhedrovirus* (AgipMNPV), *Buzura suppressaria nucleopolyhedrovirus* (BuzuNPV), *Choristoneura fumiferana DEF nucleopolyhedrovirus* (CfDefNPV), *Choristoneura rosaceana nucleopolyhedrovirus* (ChroNPV), *Culex nigripalpus nucleopolyhedrovirus* (CuniNPV), *Epiphyas postvittana nucleopolyhedrovirus* (EppoNPV), *Helicoverpa armigera nucleopolyhedrovirus*, (HearNPV), *Mamestra configurata nucleopolyhedrovirus* (MacoNPV), *Neodiprion Lecontii nucleopolyhedrovirus* (NeleNPV), *Spodoptera littoralis nucleopolyhedrovirus* (SpliNPV), *Thysanoplusia orichalcea nucleopolyhedrovirus* (ThorNPV), *Wiseana signata nucleopolyhedrovirus* (WisiNPV) as species in genus *Nucleopolyhedrosvirus*.

2. Add Hyphantria cunea nucleopolyhedrovirus (HycuNPV) as a tentative species in genus *Nucleopolyhedrosvirus.*
3. Add *Adoxophyes orana granulovirus* (AdorGV), *Choristoneura fumiferana granulovirus* (ChfuGV), *Cryptophlebia leucotreta granulovirus* (CrleGV), *Harrisina brillians granulovirus* (HabrGV), *Lacanobia oleracea granulovirus* (LaolGV), *Plutella xylostella granulovirus* (PlxyGV), *Pseudalatia unipuncta granulovirus* (PsunGV), *Helicoverpa armigera granulovirus* (HeamGV) as species in genus *Granulovirus.*

Family *Nodaviridae*

1. Revise the species list for genus *Alphanodavirus* to contain only *Black beetle virus, Boolara virus, Flock house virus, Nodamura virus* and *Pariacoto virus.*
2. Revise the species list for genus *Betanodavirus* to contain only *Barfin flounder nervous necrosis virus, Redspotted grouper nervous necrosis virus, Striped jack nervous necrosis virus* and *Tiger puffer nervous necrosis virus.*
3. To downgrade Dicentrarchus labrax encephalitis virus (DlEV), Japanese flounder nervous necrosis virus (JFNNV), and Lates calcarifer encephalitis virus (LcEV) to tentative species in the genus *Betanodavirus.*
4. To recognize Atlantic halibut nodavirus (AHNV), Halibut nervous necrosis virus (HNNV), Dragon grouper nervous necrosis virus (DGNNV), Grouper nervous necrosis virus (GNNV), Malabaricus grouper nervous necrosis virus (MGNNV), Seabass nervous necrosis virus (SBNNV), and Umbrina cirrosa nodavirus (UCNV) as tentative species in the genus *Betanodavirus.*

New family *Dicistroviridae*

1. Create a new family typified by the genus "Cricket Paralysis-like Viruses".
2. Name the family created in (4), *Dicistroviridae.*
3. Rename the genus "Cricket Paralysis-like Viruses", *Cripavirus.*
4. Assign *Triatoma virus* (TrV) and *Black-queen cell virus* (BQCV) to genus, *Cripavirus.*
5. Assign Acute bee paralysis virus (ABPV) as a tentative member of the genus *Cripavirus.*

Fungus virus Subcommittee

Family *Hypoviridae*

1. Recognize *Cryphonectria hypovirus 3* as a species in genus *Hypovirus*
2. Change the status of *Cryphonectria hypovirus 4* from that of a tentative species to that of a definitive species in genus *Hypovirus*

Family *Partitiviridae*

1. Remove genus *Chrysovirus* from family *Partitiviridae*.
2. Create a family typified by genus *Chrysovirus.*
3. Name the new family *Chrysoviridae.*
4. Recognize *Helminthosporium victoriae 145S virus* as a species in genus *Chrysovirus.*
5. Add *Fusarium poae virus* and *Fusarium solani virus 1* as species in genus *Partitivirus.*

Progress towards the development of a universal virus database was reviewed and some features of what is available now were demonstrated. The database project will be described in a forthcoming article in *Virology Division News* by the Database Subcommittee Chair. There will be a demonstration of the current state of development of ICTVdb at the International Congress of Virology (ICV) that will be held in Paris in July this year.

As required by Statute, the Executive Committee will meet at the ICV. During the Congress there will be an ICTV Plenary Session at which there will be elections for members of the next Executive Committee as well as presentations of taxonomic changes over the last 3 years and proposals for further taxonomic changes. An agenda and programme will be announced in more detail in a future note in *Virology Division News*. Also at the Congress, there will be a display of posters about taxonomy-related matters and a workshop at which taxonomy will be discussed. The Executive Committee of ICTV would very much welcome feedback from virologists about how they feel virus taxonomy is developing. The Plenary Session and the Taxonomy Worshop are opportunities for this to happen and interested virologists attending the Paris ICV are urged to attend one or both of these events.

Author's address: Dr. M. A. Mayo, Secretary ICTV, Scottish Crop Research Institute, Invergowrie, Dundee DD2 5DA, U.K.