



This form should be used for all taxonomic proposals. Please complete all those modules that are applicable (and then delete the unwanted sections).

Code(s) assigned: **2008.039B** (to be completed by ICTV officers)

Short title: create species Bacillus phage GA-1 within the genus "Phi29-like viruses" in the subfamily Picovirinae, family Podoviridae

(e.g. 6 new species in the genus *Zetavirus*; re-classification of the family *Zetaviridae* etc.)

Modules attached | 1 2 3 4 5
(please check all that apply): | 6 7

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ICTV-EC or Study Group comments and response of the proposer:



MODULE 5: NEW SPECIES

Code	2008.039B	(assigned by ICTV officers)
To create new species assigned as follows:		
Genus:	“Phi29-like viruses”	Fill in all that apply. Ideally, species should be placed within a genus, but it is acceptable to propose a species that is within a Subfamily or Family but not assigned to an existing genus (in which case put “unassigned” in the genus box)
Subfamily:	<i>Picovirinae</i>	
Family:	<i>Podoviridae</i>	
Order:	<i>Caudovirales</i>	

Name(s) of proposed new species:

Bacillus phage GA-1

Argument to justify the creation of the new species:

If the species are to be assigned to an existing genus, list the criteria for species demarcation and explain how the proposed members meet these criteria.

Bacteriophage GA-1 infects *Bacillus* sp. strain G1R and has a linear double-stranded DNA genome (21,129nt) with a terminal protein covalently linked to its 5' ends (NC_002649). Its close relationship to phi29 is well established in literature based on conserved proteins and function (see references for some examples). However, phage GA-1 has no DNA homology to other described phages, the main criterion used for species demarcation.

References:

- ** Alcorlo M, Salas M, Hermoso JM. (2007) In vivo DNA binding of bacteriophage GA-1 protein p6. *J Bacteriol.* 189(22):8024-33.
- ** Longás E, de Vega M, Lázaro JM, Salas M. (2006) Functional characterization of highly processive protein-primed DNA polymerases from phages Nf and GA-1, endowed with a potent strand displacement capacity. *Nucleic Acids Res.* 34(20):6051-63.
- ** Pérez-Arnaiz P, Longás E, Villar L, Lázaro JM, Salas M, de Vega M. (2007) Involvement of phage phi29 DNA polymerase and terminal protein subdomains in conferring specificity during initiation of protein-primed DNA replication. *Nucleic Acids Res.* 2007;35(21):7061-73.

Annexes:

See also the TaxoProp form on the modified ‘phi29-like viruses’ genus.