



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: **2008.060B** (to be completed by ICTV officers)

Short title: create species named Phormidium phage Pf-WMP4 to be unassigned within the 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	2008.060B	(assigned by ICTV officers)
To create new species assigned as follows:		
Genus:	unassigned	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:		
Family:	<i>Podoviridae</i>	
Order:	<i>Caudovirales</i>	

Name(s) of proposed new species:

Phormidium phage Pf-WMP4

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.

Electron microscopy of the purified cyanophage Pf-WMP4 revealed that the virion was an icosahedron (diameter about 55 nm) with a short tail. Therefore morphologically, cyanophage Pf-WMP4 belongs to the order *Podoviridae*. Based on the detailed sequences of the genome ends, the precise genome size of Pf-WMP4 was found to be 40,938 bp with 107-bp terminal repeats ([NC_008367](#)).

Forty-five ORFs were identified on the Pf-WMP4 genome, and 15 of these could be assigned functions based on homology, nine of which are T7-like core genes. Although Pf-WMP4 lacks the hallmark T7-like RNA polymerase (RNAP) gene (Scholl et al., 2004), which is also absent in roseophage SIO1 and vibriophage VpV262 genomes. Despite the observed correlations, based on these data, they fall outside the definition maintained for the *Autographivirinae* subfamily. Compared with Pf-WMP3, cyanophage Pf-WMP4 has diverged extensively at the DNA level, since no DNA similarity is present.

References:

** Liu X, Shi M, Kong S, Gao Y, An C. (2007) Cyanophage Pf-WMP4, a T7-like phage infecting the freshwater cyanobacterium *Phormidium foveolarum*: complete genome sequence and DNA translocation. *Virology*. 15;366(1):28-39.

Annexes:

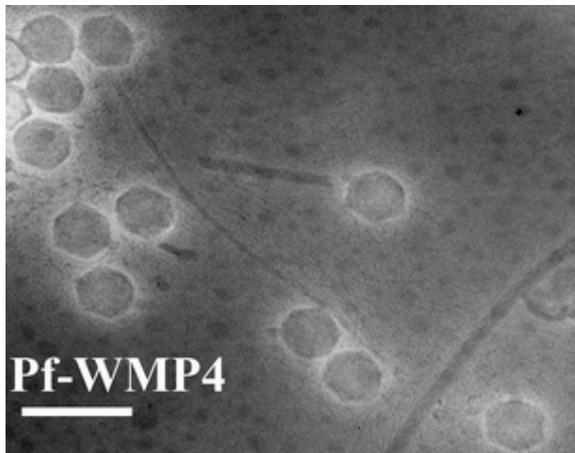


Figure 1 Electron micrograph of cyanophage Pf-WMP4 (Bar = 100 nm)
