



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: **2008.081B** (to be completed by ICTV officers)

Short title: Create new species named Enterobacteria phage K1-5 in the genus "SP6-like viruses", subfamily Autographivirinae, 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

Author(s) with e-mail address(es) of the proposer:

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

MODULE 5: **NEW SPECIES**

Code	2008.081B	(assigned by ICTV officers)
To create new species assigned as follows:		
Genus:	“SP6-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>Autographivirinae</i>	
Family:	<i>Podoviridae</i>	
Order:	<i>Caudovirales</i>	

Name(s) of proposed new species:

Enterobacteria phage K1-5

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.

Phage K1-5 was first described in 2001 as having dual host-specificity, growing on both K1 and K5 capsulated strains of *Escherichia coli*. Morphologically, K1-5 belongs to the family *Podoviridae*. The phage codes for its own RNA polymerase and thus should be assigned to the subfamily *Autographivirinae*. The K1-5 genome, containing 44385 bp, is ~700 bp larger than SP6, the phage most closely related ([NC_008152](#)). The promoter specificity of K1-5 RNA polymerase is different from that of SP6 and the host ranges of the two phages do not overlap. Host range is primarily determined by two heexameric sets of phage-coded tailspike enzymes with specificities for distinct polysaccharide capsules.

References:

Scholl, D., S. Rogers, S. Adhya, and C. Merrill. 2001. Bacteriophage K1-5 encodes two different tail fiber proteins, allowing it to infect and replicate on both K1 and K5 strains of *Escherichia coli*. *J. Virol.* 75:2509-2515.

Scholl, D., J. Kieleczawa, P. Kemp, J. Rush, C. C. Richardson, C. Merrill, S. Adhya, and I. J. Molineux. 2004. Genomic analysis of bacteriophages SP6 and K1-5, an estranged subgroup of the T7 supergroup. *J. Mol. Biol.* **335**:1151-1171.

Annexes:

Include as much information as necessary to support the proposal. The use of Figures and Tables is strongly recommended.