

# Supplementary

**Table S1.** Samples used in the study.

Sample	Sampling Date	Source	Type	Density, g mL <sup>-1</sup>	
SSII	SS6	November 2009	Salt field *	Salt (fine grind)	
	SS7		Salt field *	Salt (large crystals)	
	SS8		Salt field **	Salt crystals	
	SS9		Saltern pond **	Salt water and mud	1.15
SSIII	SS10	December 2010	Salt field *	Salt (fine grind)	
	SS11		Saltern pond **	Salt water	1.02
	SS12		Saltern pond **	Salt water	1.05
	SS13		Salt field **	Salt crystals	

\*Collected and rinsed by Samut Sakhon saltern personnel; \*\*Collected by Academy Professor D. Bamford.

**Table S2.** Bacterial strains isolated and used in this study.

Sample <sup>a</sup>	Strain	16S rRNA Gene Partial Sequence GenBank Acc. No. and Length (bp)
SSII	<i>Rhodovibrio</i> sp. SS9-9	KM019181 (498)
SSIII	<i>Halobacillus</i> sp. SS10-1	KM019182 (515)
SSIII	<i>Halobacillus</i> sp. SS10-2	KM019183 (545)
SSIII	<i>Halobacillus</i> sp. SS10-8	KM019184 (545)
SSIII	<i>Pontibacillus</i> sp. SS11-1	KM019185 (872)
SSIII	<i>Halobacillus</i> sp. SS11-2	KM019186 (819)
SSIII	<i>Halobacillus</i> sp. SS11-4	KM019187 (966)
SSIII	<i>Halobacillus</i> sp. SS12-1	KM019188 (514)
SSIII	<i>Halobacillus</i> sp. SS12-2	KM019189 (526)
SSIII	<i>Halobacillus</i> sp. SS12-3	KM019190 (703)
SSIII	<i>Pontibacillus</i> sp. SS13-1	KM019191 (531)
SSIII	<i>Halobacillus</i> sp. SS13-2	KM019192 (556)
SSIII	<i>Pontibacillus</i> sp. SS13-3	KM019193 (506)
SSIII	<i>Sedimibacillus</i> sp. SS13-9	KM019194 (627)
SSIII	<i>Pontibacillus</i> sp. SS13-15	KM019195 (883)

a. SSII, Samut Sakhon sample 2009; SSIII, Samut Sakhon sample 2010.

**Table S3.** Host range of SSIII virus isolates with unknown morphology.

Virus Isolate Number	37	38	39	40	41	42	43	44	45
Initial stock titer, PFU ml <sup>-1</sup>	$1.8 \times 10^8$	$1.3 \times 10^6$	$2.9 \times 10^7$	$1.5 \times 10^8$	$1.6 \times 10^7$	$1.7 \times 10^7$	$6.2 \times 10^9$	$1.2 \times 10^6$	$1.7 \times 10^6$
Host strain									
<i>Halorubrum</i> sp. SS10-3							-2		
<i>Halorubrum</i> sp. SS10-9	1 <sup>a</sup>	-1	1	1	1	1	1		-2
<i>Haloarcula</i> sp. SS13-14									H
<i>Halorubrum</i> sp. SS6-2	1	-1	1	1		1	1		1
<i>Halobacterium</i> sp. SS6-4									
<i>Halobacterium</i> sp. SS6-5	-1		-1		1	-2	-5		-2
<i>Halorubrum</i> sp. SS7-4	+1	-1	-2	-1	-2	-2	+1	-1	+2
<i>Halorubrum</i> sp. SS8-2	-1	-2		-2	1		-5	-4	+1
<i>Haloarcula</i> sp. SS8-4						-2			
<i>Halorubrum</i> sp. SS8-7	1	-1	1			1			
<i>Halorubrum</i> sp. SS9-12	-1	-2			1	1	-1	-1	
<i>Halorubrum</i> sp. SP3-3	-1	-2	1	1		1	-1		
<i>Halorubrum</i> sp. SS1-3	-1	-1	1	-2	1	1	1	-3	1
<i>Har. japonica</i>								H	
<i>Hrr. sodomense</i>	H	H	H	H	H	H	H		

a: The efficiency of plating (EOP) of the virus on its original host has been set to one and marked with H. Number 1 is equal to the EOP on the original host. Numbers -1, -2,... refer to  $10^{-1}$ ,  $10^{-2}$ ,... and +1, +2,... refer to  $10^1$ ,  $10^2$ ,... when compared to the EOP on the original host.

Table S4. Host range of myoviruses and siphoviruses.

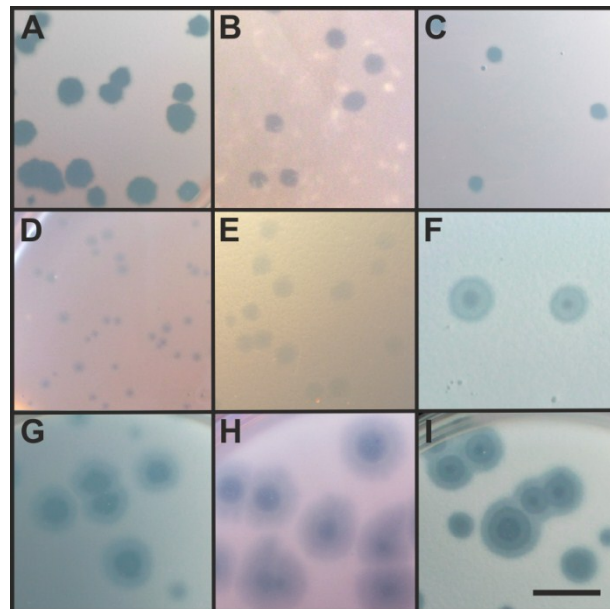
Morphotype	Myoviruses																									Siphoviruses								
	HRTV-13	HRTV-14	HRTV-15	HRTV-16	HRTV-17	HSTV-4	HRTV-18	HRTV-19	HRTV-20	HRTV-21	HRTV-22	HRTV-23	HRTV-24	HRTV-25	HCTV-6	HCTV-7	HCTV-8	HCTV-9	HCTV-10	HCTV-11	HCTV-12	HCTV-13	HCTV-14	HCTV-15	HJTV-3	HRTV-26 <sup>b</sup>	HRTV-27 <sup>b</sup>	HRTV-28	HRTV-29	HATV-3	HCTV-16			
Virus	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31			
Host strain																																		
<i>Halorubrum</i> sp. SS10-3	-2 <sup>a</sup>	-5				1	H	H	1			-3				-7		-7	-7	-7	-7		-8											
<i>Halorubrum</i> sp. SS10-9	-1	1	+1		1	1	-1	-3	H	H	H	H	H	1	-1	1	-1	-1	-1	-1	-1	-1	-1	-6	-2		-1	1	-10					
<i>Halorubrum</i> sp. SS13-12													H																					
<i>Halorubrum</i> sp. SS6-1		-6								-6					-4				-7		-5													
<i>Halorubrum</i> sp. SS6-2	-1	H	H	H		1	1	+1	1	1		-1	1	-1	-1	-3	-4	-4	-4	-3	-3	1	-3	1	-6	-1								
<i>Halorubrum</i> sp. SS7-4		-2				1	1	-6	-1				-2		-3									-8	-8				-5	H	-4	-7		
<i>Halorubrum</i> sp. SS8-2	H	-1	-7	-6		-1	-1	1	-1	-1	1	1	1		-1	+1	+1	+1	1	1	1	-1	1		-5	-4				-10				
<i>Halorubrum</i> sp. SS8-7						-4	-4	-6	-2	1					-8	-1	1	1	1	1	-2	1	-2	-1	-5	-1			H					
<i>Halorubrum</i> sp. SS9-12	-1	1	-6		H	1	-1	1	-1	-1	-1	-1	-1	-1			-7	-7		-7	-7		-8	-8	-7	-1								
<i>Halorubrum</i> sp. SS5-4						-1	-1	1	1																						-1			
<i>Halorubrum</i> sp. SP3-3	-2	-3			-3	+1	-1	-3	-1	1	-7	-1	-4													-6	-1							
<i>Halorubrum</i> sp. SS1-3	1	-5	-1	-2		1	1	1	1	1	1	1	1	1	1	-1	1	1	1	1	1	-1	-1	1	1	-1	1							
<i>Halorubrum sodomense</i>		-1		-6		H			-6	1	-1		-1		1	1	+1	+1	1	1	1	1	1	1	1		-1							
<i>Haloterrigena</i> sp. SS13-7				1																														
<i>Halobacterium</i> sp. SS6-4	-1				1												1	1	1	-1	1	1		-1							-10			
<i>Halobacterium</i> sp. SS6-5						-5				-5							1				-8	-8		-1										
<i>Halobellus</i> sp. SS6-7																	-1	-1				-1	-1		-1									
<i>Haloarcula</i> sp. SS8-4	-2	-1			-1	-1	-3									-1							-1			1								
<i>Haloarcula</i> sp. SS8-5																															-5		H	
" <i>Haloarcula californica</i> "										-4							H	H	H	H	H	H	H	H	H								H	
<i>Haloarcula japonica</i>																										H								
<i>Haloarcula hispanica</i>																																		-5

**a:** The efficiency of plating (EOP) of the virus on its original isolation host has been set to one and marked with H. Number 1 is equal to the EOP on the original host. Numbers -1, -2,... refer to  $10^{-1}$ ,  $10^{-2}$ ,... and +1, +2,... refer to  $10^1$ ,  $10^2$ ,... when compared to the EOP on the original host; **b:** The host for viruses HRTV-26 and HRTV-27 is *Halorubrum* sp. SS13-13, which occasionally did not form a lawn, and consequently, it was left out from the cross-titration. The titers of HRTV-26 and HRTV-27 on *Halorubrum* sp. SS13-13 were  $2 \times 10^8$  and  $5 \times 10^6$  PFU ml<sup>-1</sup>, respectively, which were marked here as one and used here for comparison.

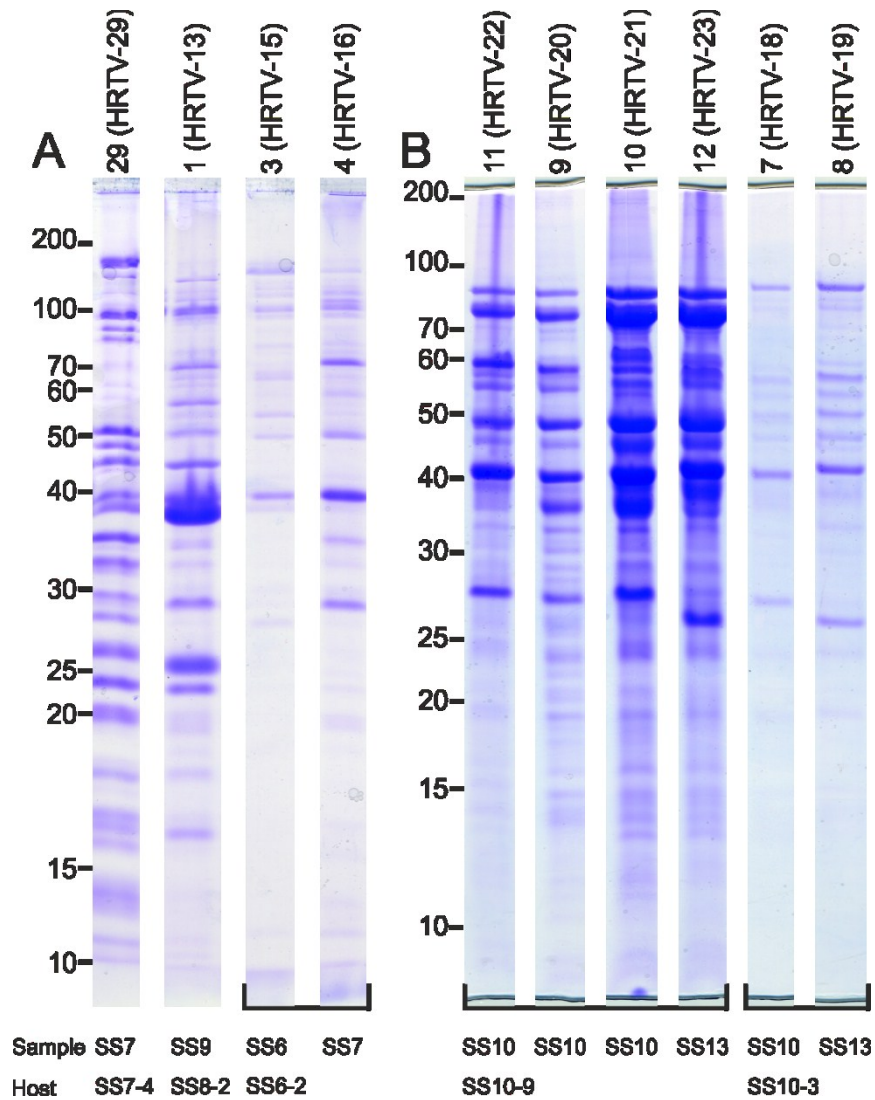
**Table S5.** Host range of pleomorphic and icosahedral viruses.

	HRPV-6	HRPV-7	HRPV-8	HAPV-1	HCIV-1
<b>Virus number</b>	<b>32</b>	<b>33</b>	<b>34</b>	<b>35</b>	<b>36</b>
Host strain					
<i>Halorubrum</i> sp. SS7-4	H	1 <sup>a</sup>			-6
<i>Halorubrum</i> sp. SS8-2			-1		
<i>Halorubrum</i> sp. SS5-4		H			
<i>Halorubrum</i> sp. SP3-3			H		
<i>Haloarcula</i> sp. SS13-14				H	
" <i>Haloarcula californiae</i> "					H
<i>Haloarcula japonica</i>					1
<i>Haloarcula hispanica</i>					-6

**a.** The efficiency of plating (EOP) of the virus on its original host has been set to one and marked with H. Number 1 is equal to the EOP on the original host. Numbers -1, -2,... refer to  $10^{-1}$ ,  $10^{-2}$ ,... and +1, +2,... refer to  $10^1$ ,  $10^2$ ,... when compared to the EOP on the original host.



**Figure S1.** Different plaque morphologies. (A–C) Clear plaques; (D–I) turbid plaques. (A) Myovirus HRTV-22; (B) icosahedral virus HCIV-1; (C) myovirus HRTV-18; (D) siphovirus HRTV-29; (E) isolate No 37 with unknown morphotype; (F) myovirus HCTV-10; (G) myovirus HCTV-9; (H) pleomorphic virus HRPV-6; (I) myovirus HCTV-11. Scale bar, 1 cm for all sections.



**Figure S2.** Structural protein profiles of the purified virus isolates analyzed in Coomassie Brilliant Blue stained tricine-SDS-polyacrylamid gel. Virus numbers refer to Table 1. (A) Examples of virus isolates with different protein profiles. Virus No. 29 is a siphovirus, Nos. 1, 3, and 4 are myoviruses; (B) Examples of myovirus isolates with closely related protein profiles. The molecular mass marker (kDa) is shown on the left in A and B. The origin (sample; see Supplementary Table S1) and the isolation of hosts (all belong to *Halorubrum*) of the viruses are shown below.