

Supplementary Materials



Figure S1. The two sampled water wells (KSL and KSP) in the Lake Karla, basin, Greece.

Table S1. Basic physical, chemical and biological characteristics of the two water wells (KSL and KSP) in the Lake Karla basin, Greece, on the sampling day (15 September 2011).

Water Well	Depth (m)	Temperature (°C)	pH	Conductivity (mS)	NO ₃ ⁻ (μm) ¹	PO ₄ ³⁻ (μm) ¹	DOC (mg L ⁻¹) ²	Prokaryotic Cell (COUNTS/mL) ³
KSL	68	14.1	6.56	2,122	89.1 ± 2.22	4.11 ± 0.33	11.5 ± 0.98	77,945 ± 662
KSP	162	14.4	6.68	1,976	76.8 ± 1.31	3.88 ± 0.44	10.3 ± 1.23	80,121 ± 841

Notes: ¹ Determined spectrophotometrically according to USEPA guidelines. ² DOC: dissolved organic carbon; determined with the high-temperature catalytic oxidation (HTCO) method. ³ Determined after DAPI staining and enumeration.

Table S2. The most dominant bacterial and archaeal operational taxonomic units (OTUs) found in two water wells (KSL and KSP) of the Lake Karla Basin, Greece.

OTUs	Closest Related Taxon *	Most Common Habitat * [49–55]
Bacteria		
B-001	<i>Sphingopyxis alaskensis</i>	Marine; oligotrophic
B-002	<i>Xanthomonas translucens</i>	Seed-borne pathogen; ice-nucleating activity
B-003	<i>Segetibacter</i> sp.	Soil
B-004	<i>Methylobacillus flagellatus</i>	Sewage-related
B-005	<i>Nitrosococcus mobilis</i>	Moderate halophile
B-006	<i>Flavobacterium gelidilacus</i>	Antarctic lake microbial mat
B-007	<i>Ideonella</i> sp.	Soil-related
B-008	<i>Lewinella cohaerens</i>	Mostly marine
B-009	<i>Sorangium cellulosum</i>	Soil
B-010	<i>Thiothrix fructosivorans</i>	Wastewater sludge, S-oxidizing

Table S2. Cont.

OTUs	Closest Related Taxon *	Most Common Habitat * [49–55]
B-011	<i>Candidatus Haliscomenobacter calcifugiens</i>	Freshwater bacterioplankton
B-012	<i>Thioclava</i> sp. 1	Marine, S-oxidizing
B-013	<i>Phenylobacterium</i> sp.	Soil
B-014	<i>Brevundimonas diminuta</i>	Water, blood samples; potential pathogen
B-015	Microgenomates	Various anaerobic niches
B-016	Candidate division GN14	Hypersaline microbial mat
B-017	<i>Pseudoxanthomonas mexicana</i>	Soil, anaerobic digester, human urine
B-018	<i>Flavobacterium columnare</i>	Freshwater fish pathogen
B-019	<i>Sphingomonas wittichii</i>	River water
B-020	<i>Methylomonas rubra</i>	Terrestrial environments
B-021	<i>Kaistobacter</i> sp. 1	Terrestrial environments
B-022	<i>Simplicispira</i> sp.	Activated sludge, soil
B-023	<i>Paracoccus denitrificans</i>	Soil
B-024	<i>Aquamonas fontana</i>	Well water
B-025	<i>Nitrospira</i> sp.	Marine, freshwater, wastewater (nitrite-oxidizer)
B-026	<i>Azovibrio</i> sp.	Plant roots (diazotroph)
B-027	<i>Sphingomonas leidyi</i>	Lake water
B-028	<i>Hydrogenophaga palleronii</i>	Wastewater sludge
B-031	<i>Dokdonella koreensis</i>	Soil
B-033	<i>Paracoccus aminovorans</i>	Soil
B-034	Chloroflexi	Mesophilic members are common in soils, sediments and freshwaters
B-148	<i>Aquimonas</i> sp.	Warm water spring
B-194	<i>Novosphingobium stygium</i>	Terrestrial subsurface
B-326	<i>Dyella japonica</i>	Soil
B-379	<i>Sphingomonas asaccharolytica</i>	Plant roots
B-431	<i>Ochrobactrum intermedium</i>	Human pathogen
B-483	<i>Candidatus Neoehrlichia mikurensis</i>	Isolated from wild rat and tick
Archaea		
A-1	Methanosarcinales	Anaerobic; freshwater and marine mud and sediments, rumens of ungulates, animal waste lagoons, sludge from anaerobic sewage sludge digestors, and animal feces.
A-2	<i>Methanococcus</i> sp.	Mostly mesophilic, marine
A-3	<i>Methanobrevibacter</i> sp.	Anaerobic, animal gut and feces, sewage-sludge digestors
A-4	<i>Nitrosopumilus</i> sp.	Marine, mostly non-coastal
A-5	Candidate division pMC1a4	Originally from deep-sea hydrothermal vents; subsurface
A-6	Cenarchaeaceae	Marine; sponge symbiont
A-7	Diapherotrites (candidate division pMC2a384)	Originally from deep-sea hydrothermal vents; subsurface
A-8	ANME-1	Anaerobic; mostly marine
A-9	SAGMEG	Terrestrial subsurface

Note: * putative affiliation at the taxon with >98% similarity.