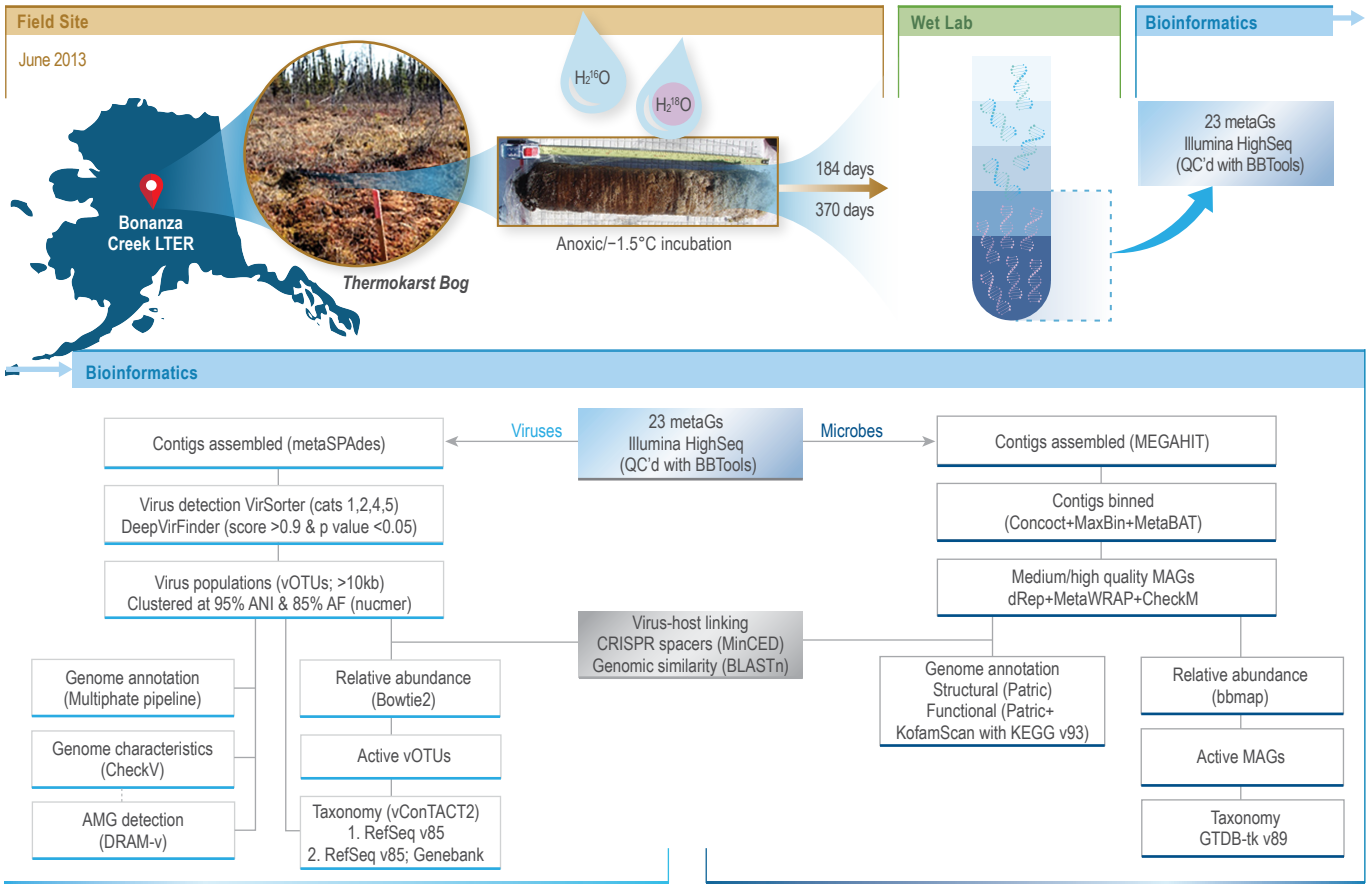
Field Site
June 2013
Bonanza Creek LTER
Thermokarst Bog
$H_2^{16}O$
$H_2^{18}O$
Anoxic/~1.5°C incubation
184 days
370 days
Wet Lab
Bioinformatics
23 metaGs
Illumina HighSeq
(QC'd with BBTools)
Bioinformatics
Viruses
Microbes
Contigs assembled (metaSPAdes)
Virus detection VirSorter (cats 1,2,4,5)
DeepVirFinder (score >0.9 & p value <0.05)
Virus populations (vOTUs; >10kb)
Clustered at 95% ANI & 85% AF (nucmer)
Genome annotation
(Multiphate pipeline)
Genome characteristics
(CheckV)
AMG detection
(DRAM-v)
Relative abundance
(Bowtie2)
Active vOTUs
Taxonomy (vConTACT2)
1. RefSeq v85
2. RefSeq v85; Genebank
Virus-host linking
CRISPR spacers (MinCED)
Genomic similarity (BLASTn)
Contigs assembled (MEGAHIT)
Contigs binned
(Concoct+MaxBin+MetaBAT)
Medium/high quality MAGs
dRep+MetaWRAP+CheckM
Genome annotation
Structural (Patric)
Functional (Patric+
KofamScan with KEGG v93)
Relative abundance
(bbmap)
Active MAGs
Taxonomy
GTDB-tk v89