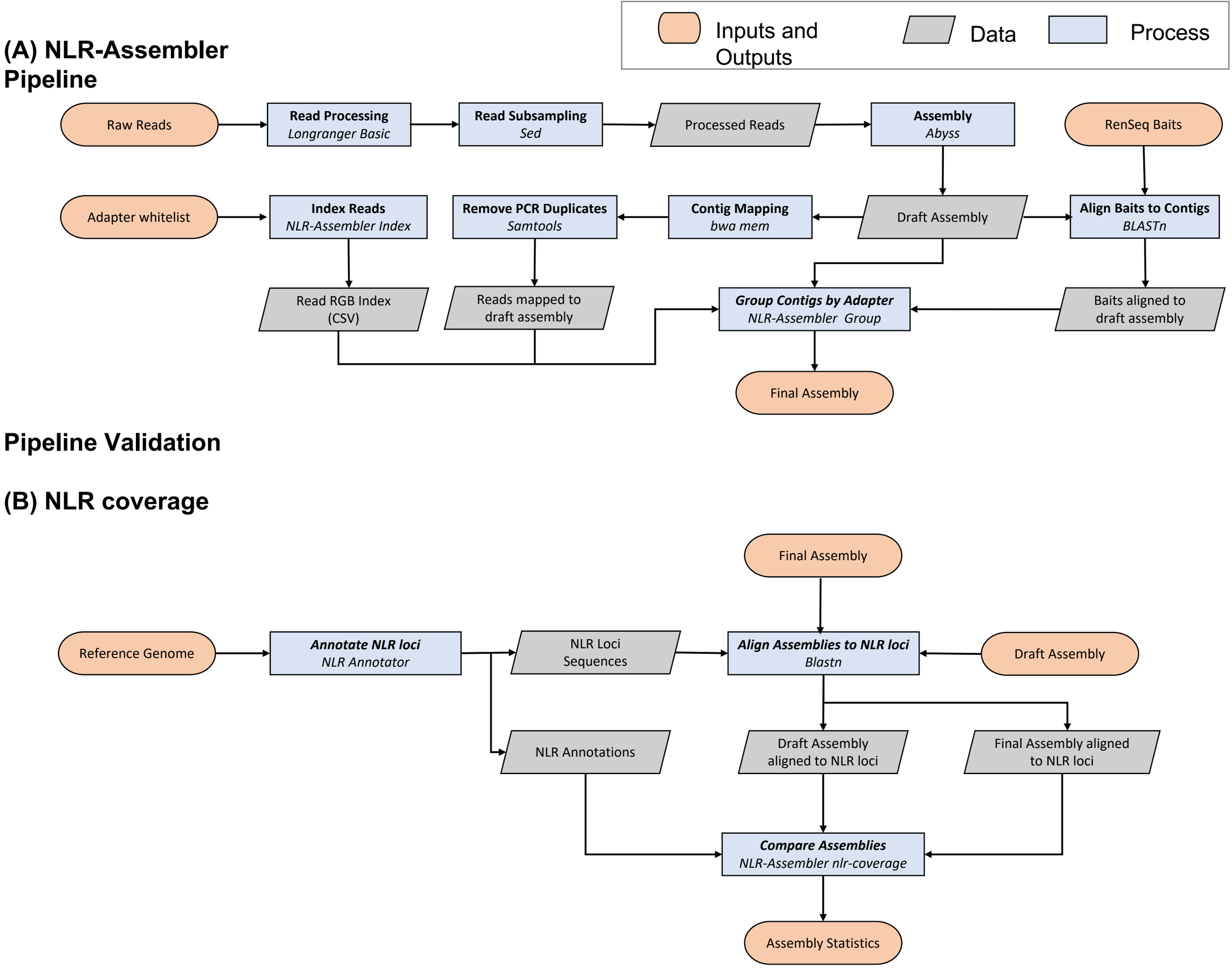
Inputs and Outputs
Data
Process
(A) NLR-Assembler Pipeline
Raw Reads
Read Processing
Longranger Basic
Read Subsampling
Sed
Processed Reads
Assembly
Abyss
RenSeq Baits
Adapter whitelist
Index Reads
NLR-Assembler Index
Remove PCR Duplicates
Samtools
Contig Mapping
bwa mem
Draft Assembly
Align Baits to Contigs
BLASTn
Read RGB Index (CSV)
Reads mapped to draft assembly
Group Contigs by Adapter
NLR-Assembler Group
Baits aligned to draft assembly
Final Assembly
Pipeline Validation
(B) NLR coverage
Final Assembly
Reference Genome
Annotate NLR loci
NLR Annotator
NLR Loci Sequences
Align Assemblies to NLR loci
Blastn
Draft Assembly
NLR Annotations
Draft Assembly aligned to NLR loci
Final Assembly aligned to NLR loci
Compare Assemblies
NLR-Assembler nlr-coverage
Assembly Statistics
(C) Contig Coverage
Reference Genome
Final Assembly
Draft Assembly
Align Assembly to Genome
Blastn
Draft Assembly aligned to
Assess Grouped Contig Coverage
NLR-Assembler query-coverage
Coverage Statistics Assembly