

# HybPhyloMaker software

				0	1	2	3	4a	4a2	4b	5	6	7	8a	8b	8c	8e	8f	8g	9	10	
		Install (yes/no)	Used command(s)	Sample preparation	Raw data processing	Read mapping	Generate psix	Process psix	Select low heterozygosity	Correct frame, translate	Missing data handling	Gene tree building	Root trees	ASTRAL	ASTRID	MRL	Concatenated FastTree	ExaML	BUCKy	Update	Collapse trees & select	Reports
Software	Source																					
GNU parallel	<a href="http://www.gnu.org/software/parallel/">http://www.gnu.org/software/parallel/</a>	y	parallel	x				x	x													
Bowtie2	<a href="http://bowtie-bio.sourceforge.net/bowtie2/index.shtml">http://bowtie-bio.sourceforge.net/bowtie2/index.shtml</a>	y	bowtie2-build, bowtie2		x	x																
BWA	<a href="http://bio-bwa.sourceforge.net/">http://bio-bwa.sourceforge.net/</a>	y	bwa mem			x			x													
SAMtools	<a href="http://samtools.sourceforge.net/">http://samtools.sourceforge.net/</a>	y	samtools		x	x			x													
BCFtools	<a href="https://samtools.github.io/bcftools/">https://samtools.github.io/bcftools/</a>	y	bcftools						x													
bam2fastq	<a href="https://gs1.hudsonalpha.org/information/software/bam2fastq">https://gs1.hudsonalpha.org/information/software/bam2fastq</a>	y	bam2fastq		x																	
Trimmomatic	<a href="http://www.usadellab.org/cms/?page=trimmomatic">http://www.usadellab.org/cms/?page=trimmomatic</a>	n	java -jar trimmomatic-0.33.jar		x																	
FastUniq	<a href="https://sourceforge.net/projects/fastuniq/">https://sourceforge.net/projects/fastuniq/</a>	y	fastuniq		x																	
JDK/JRE	<a href="http://www.oracle.com/technetwork/java/javase/">http://www.oracle.com/technetwork/java/javase/</a>	y	java		x									x	x	x					x	
OCOCO	<a href="https://github.com/karel-brinda/ococo">https://github.com/karel-brinda/ococo</a>	y	ococo			x																
kindel	<a href="https://pypi.python.org/pypi/kindel">https://pypi.python.org/pypi/kindel</a>	y	kindel			x																
ConsensusFixer	<a href="https://github.com/cbg-ethz/ConsensusFixer">https://github.com/cbg-ethz/ConsensusFixer</a>	n	java -jar ConsensusFixer.jar			x																
Perl	<a href="https://www.perl.org/">https://www.perl.org/</a>	y	perl		x			x		x		x					x					
BLAT suite	<a href="https://genome.ucsc.edu/goldenpath/help/blatSpec.html">https://genome.ucsc.edu/goldenpath/help/blatSpec.html</a>	y	blat				x															
MAFFT	<a href="http://mafft.cbrc.jp/alignment/software/">http://mafft.cbrc.jp/alignment/software/</a>	y	mafft					x	x													
Python	<a href="https://www.python.org/">https://www.python.org/</a>	y	python					x						x	x							
Python3	<a href="https://www.python.org/download/releases/3.0/">https://www.python.org/download/releases/3.0/</a>	y	python3			x				x	x											
AMAS	<a href="https://github.com/marekborowiec/AMAS/">https://github.com/marekborowiec/AMAS/</a>	n	python3 amas.py					x	x	x	x	x		x	x		x	x				
EMBOSS	<a href="http://emboss.open-bio.org/">http://emboss.open-bio.org/</a>	y	transeq							x												
TrimAl	<a href="http://trimal.cgenomics.org/">http://trimal.cgenomics.org/</a>	y	trimal								x											
MstatX	<a href="https://github.com/gcollet/MstatX">https://github.com/gcollet/MstatX</a>	y	mstatx								x											
FastTree	<a href="http://www.microbesonline.org/fasttree/">http://www.microbesonline.org/fasttree/</a>	y	fasttree									x					x					
Newick Utilities	<a href="http://cegg.unige.ch/newick_utils">http://cegg.unige.ch/newick_utils</a>	y	nw_reroot, nw_topology									x	x	x	x	x					x	
RAxML	<a href="http://sco.h-its.org/exelixis/web/software/raxml/index.html">http://sco.h-its.org/exelixis/web/software/raxml/index.html</a>	y	raxmlHPC									x					x					
R	<a href="https://www.r-project.org/">https://www.r-project.org/</a>	y	R								x	x							x	x		x
ASTRAL	<a href="https://github.com/smirarab/ASTRAL">https://github.com/smirarab/ASTRAL</a>	n	java -jar astral.5.6.1.jar											x								
ASTRID	<a href="https://github.com/pranjalv123/ASTRID">https://github.com/pranjalv123/ASTRID</a>	n	ASTRID												x							
p4	<a href="http://p4.nhm.ac.uk">http://p4.nhm.ac.uk</a>	y	p4											x	x							
mrpmatrix	<a href="https://github.com/smirarab/mrpmatrix">https://github.com/smirarab/mrpmatrix</a>	n	java -jar mrp.jar														x					
ExaML	<a href="http://sco.h-its.org/exelixis/web/software/examl/index.html">http://sco.h-its.org/exelixis/web/software/examl/index.html</a>	y	examl															x				
BUCKy	<a href="https://www.stat.wisc.edu/~ane/bucky/">https://www.stat.wisc.edu/~ane/bucky/</a>	y	mbsum, bucky																x			