

NGS, SNP's and WHRI

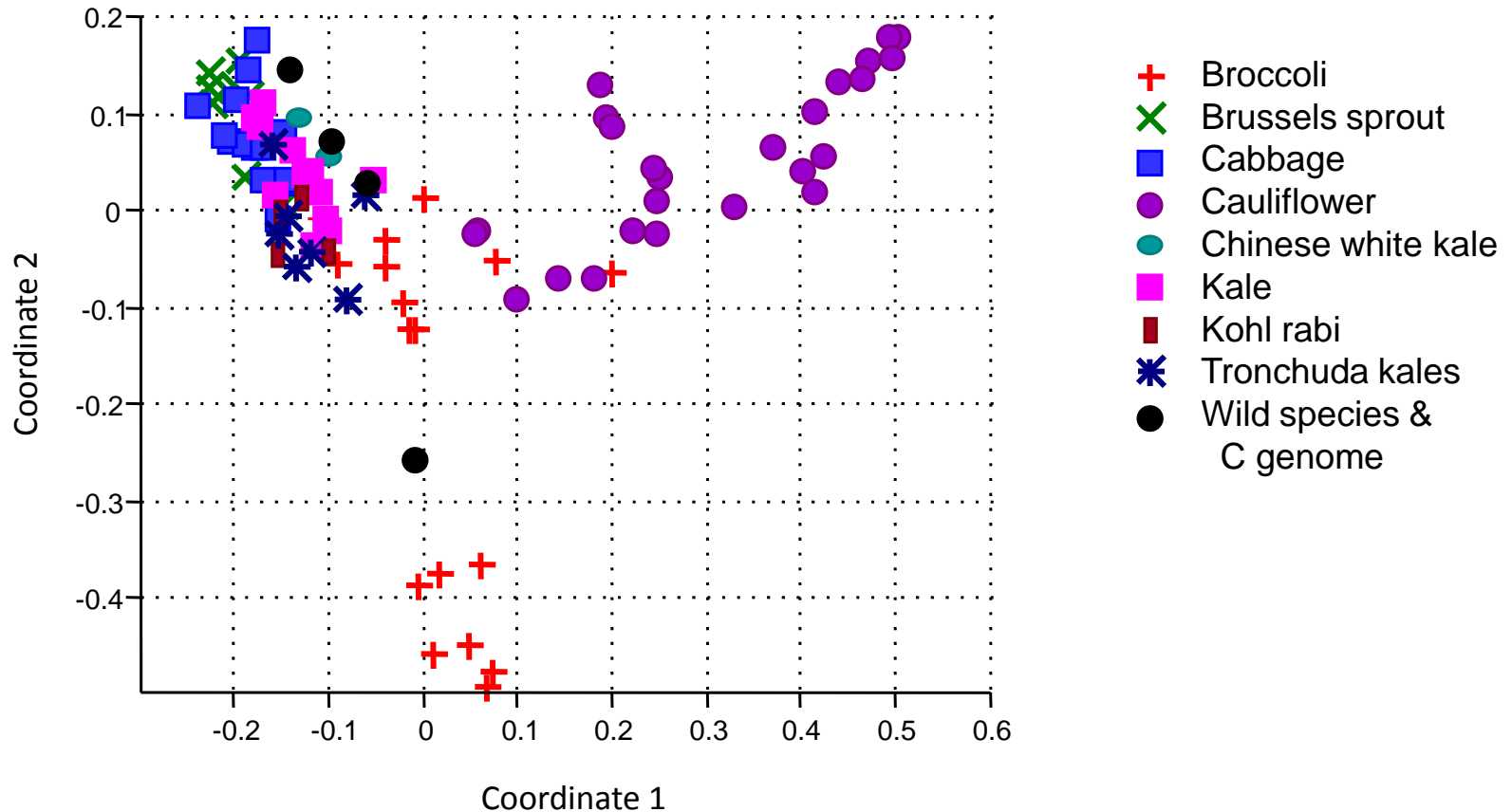
G.Barker, J.Moore, R.Love, G.Teakle,
P.Hand, Q.Wang, J.Selby, R.Edwards,
K.Peplow, S. McClement, N.Grant and
D.Pink.

768 SNP's selected for variation in parental lines screened against Bo and C genome DFFS sets and parental lines

Principal Coordinate Analysis of 100 SSRs on 94 lines

1006 alleles in total

503 alleles at ≥ 5 abundance used for diversity analysis



Our uses of Next Generation sequencing:-

- ◆ BAC and Fosmid sequencing
- ◆ Small RNA
- ◆ Whole genome Sequencing of pathogens
e.G Xanthomonas and Bee viruses
- ◆ Transcriptional sequencing for marker identification and for abundance of message at a given stage in the life cycle.
- ◆ Eco-tilling for novel alleles
- ◆ Whole genome assemblies of crops eg. Brassica and lettuce accessions

Assembly of Illumina GAllx reads for comparative genomics

Position: 1013583

▶ Translate ▶ Consensus

1012610 1012620 1012630 1012640 1012650 1012660 1012670 1012680 1012690 1012700 1012710 1012720

NC_010688.1 → TTCATGCCGCTACCCGCAACACCCGCCACCTCGCTCGGCATCGTCTCCACCTGTTGTTCAARTGAGAGAATAGGGCTTCGTAGTCTTCGGATCTCTTCGTGGCGATTTCCG

HWUSI-EAS591_3_28_1175_1444#0/1 ← TTCATGCCGCTACTCGCACAC |

HWUSI-EAS591_3_17_1038_947#0/1 ← TTCATGCCGCTACTCGCACAC |

HWUSI-EAS591_3_28_707_1085#0/1 → TTCATGCCGCTACTCGCACAC |

HWUSI-EAS591_3_75_1265_1458#0/1 → TTCATGCCGCTACTCGCACACC ▶

HWUSI-EAS591_3_86_106_1556#0/1 → TTCATGCCGCTACTCGCACACC ▶

HWUSI-EAS591_3_48_1072_1866#0/1 → TTCATGCCGCTACTCGCACACC ▶

HWUSI-EAS591_3_55_193_1106#0/2 ← TTCATGCCGCTACTCGCACACC TG |

HWUSI-EAS591_3_2_474_1888#0/1 ← TTCATGCCGCTACTCGCACACC TG |

HWUSI-EAS591_3_67_285_869#0/1 → TTCATGCCGCTACTCGCACACC TG ▶

HWUSI-EAS591_3_67_287_871#0/1 → TTCATGCCGCTACTCGCACACC TG ▶

HWUSI-EAS591_3_23_424_1414#0/2 → TTCATGCCGCTACTCGCACACC TGCC ▶

HWUSI-EAS591_3_56_1760_723#0/1 ← TTCATGCCGCTACTCGCACACC TGCC |

HWUSI-EAS591_3_12_1583_637#0/1 ← TTCATGCCGCTACTCGCACACC TGCCA |

HWUSI-EAS591_3_39_693_1151#0/1 ← TTCATGCCGCTACTCGCACACC TGCCA |

HWUSI-EAS591_3_39_738_1349#0/2 → TTCATGCCGCTACTCGCACACC TGCCACCT ▶

HWUSI-EAS591_3_66_1060_1156#0/1 → TTCATGCCGCTACTCGCACACC TGCCACCT ▶

HWUSI-EAS591_3_30_122_714#0/1 → TTCATGCCGCTACTCGCACACC TGCCACCTC ▶

HWUSI-EAS591_3_85_312_662#0/1 → TTCATGCCGCTACTCGCACACC TGCCACCTC ▶

HWUSI-EAS591_3_9_824_724#0/1 ← ◀GCCGCTACTCGCACACC TGCCACCTCGCTCGGCA |

HWUSI-EAS591_3_69_754_1260#0/1 ← ◀CGCTACTCGCACACC TGCCACCTCGCTCGGCATC |

HWUSI-EAS591_3_83_543_1525#0/1 ← ◀CGCTACTCGCACACC TGCCACCTCGCTCGGCATC |

HWUSI-EAS591_3_45_517_237#0/2 ← ◀GCTACTCGCACACC TGCCACCTCGCTCGGCATCG |

HWUSI-EAS591_3_48_1072_1866#0/2 ← ◀GCTACTCGCACACC TGCCACCTCGCTCGGCATCG |

HWUSI-EAS591_3_6_1628_926#0/1 → |TACTCGCACACC TGCCACCTCGCTCGGCATCGTC ▶

HWUSI-EAS591_3_19_1344_1305#0/2 ← ◀ACTCGCACACC TGCCACCTCGCTCGGCATCGTCT |

Strategy of Contig 'NC_010688.1'

