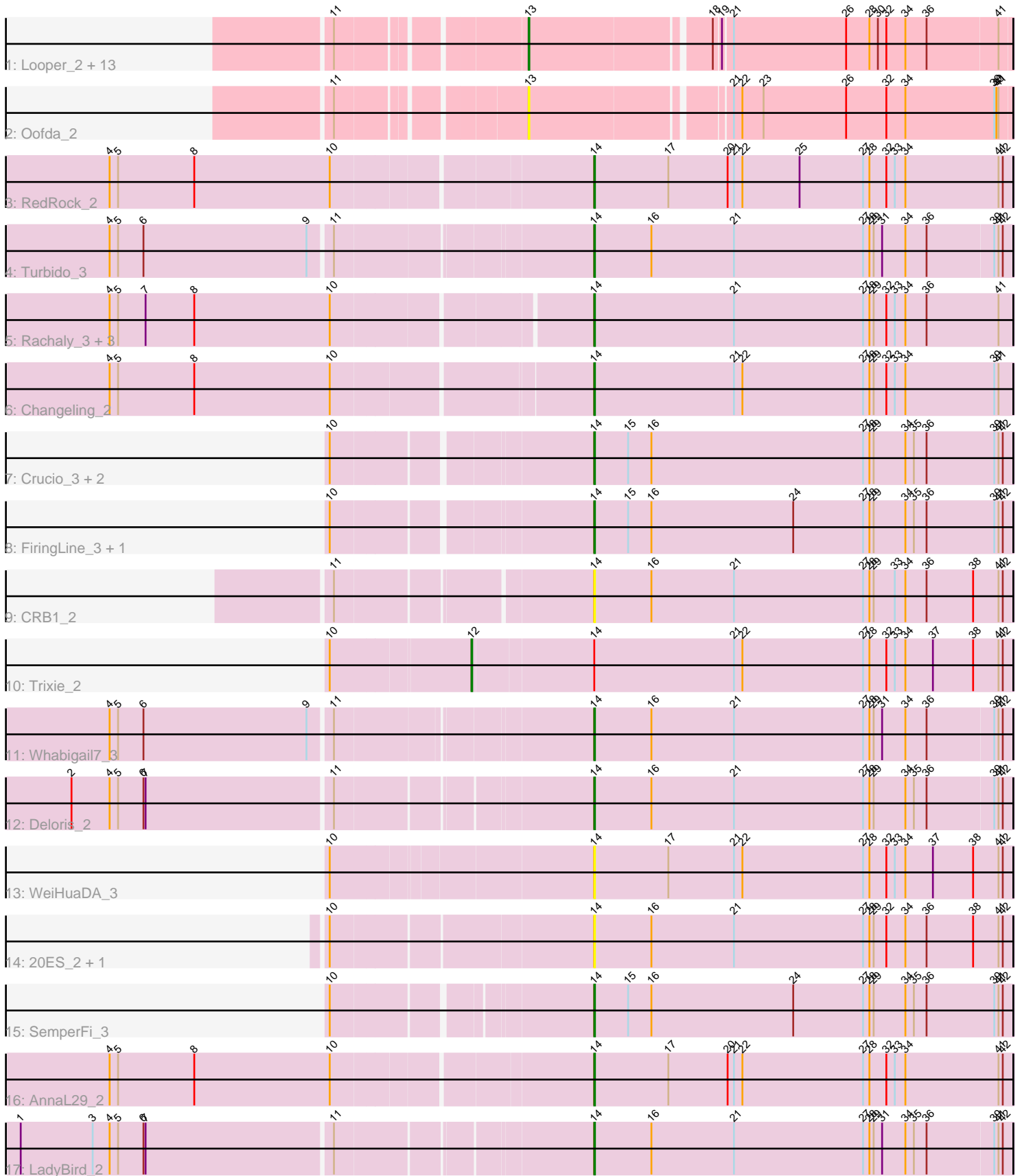


Pham 163768



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 163768 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163768 has 37 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Looper\_2, ReMo\_2, LastResort\_2, DekHockey33\_2, Boohoo\_2, Switzerland\_2, Battleship\_3, Anaysia\_2, Waits\_2, Soups\_2, Rosalind\_2, MinecraftSteve\_3, Epsocamisio\_2, KatherineG\_2
- Track 2 : Oofda\_2
- Track 3 : RedRock\_2
- Track 4 : Turbido\_3
- Track 5 : Rachaly\_3, Lokk\_3, Miko\_3, BobSwaget\_3
- Track 6 : Changeling\_2
- Track 7 : Crucio\_3, SweetiePie\_3, Power\_3
- Track 8 : FiringLine\_3, SnapTap\_3
- Track 9 : CRB1\_2
- Track 10 : Trixie\_2
- Track 11 : Whabigail7\_3
- Track 12 : Deloris\_2
- Track 13 : WeiHuaDA\_3
- Track 14 : 20ES\_2, First\_002
- Track 15 : SemperFi\_3
- Track 16 : AnnaL29\_2
- Track 17 : LadyBird\_2

### ***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 14, it was called in 17 of the 32 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_2, AnnaL29\_2, BobSwaget\_3, CRB1\_2, Changeling\_2, Crucio\_3, Deloris\_2, FiringLine\_3, First\_002, LadyBird\_2, Lokk\_3, Miko\_3, Power\_3, Rachaly\_3, RedRock\_2, SemperFi\_3, SnapTap\_3, SweetiePie\_3, Turbido\_3, WeiHuaDA\_3, Whabigail7\_3,

Genes that have the "Most Annotated" start but do not call it:

- Trixie\_2,

Genes that do not have the "Most Annotated" start:

• Anaysia\_2, Battleship\_3, Boohoo\_2, DekHockey33\_2, Epsocamisio\_2, KatherineG\_2, LastResort\_2, Looper\_2, MinecraftSteve\_3, Oofda\_2, ReMo\_2, Rosalind\_2, Soups\_2, Switzerland\_2, Waits\_2,

### Summary by start number:

Start 12:

- Found in 1 of 37 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 1 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Trixie\_2 (A2),

Start 13:

- Found in 15 of 37 ( 40.5% ) of genes in pham
- Manual Annotations of this start: 14 of 32
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaysia\_2 (A15), Battleship\_3 (A15), Boohoo\_2 (A15), DekHockey33\_2 (A15), Epsocamisio\_2 (A15), KatherineG\_2 (A15), LastResort\_2 (A15), Looper\_2 (A15), MinecraftSteve\_3 (A15), Oofda\_2 (A15), ReMo\_2 (A15), Rosalind\_2 (A15), Soups\_2 (A15), Switzerland\_2 (A15), Waits\_2 (A15),

Start 14:

- Found in 22 of 37 ( 59.5% ) of genes in pham
- Manual Annotations of this start: 17 of 32
- Called 95.5% of time when present
- Phage (with cluster) where this start called: 20ES\_2 (A2), AnnaL29\_2 (A2), BobSwaget\_3 (A2), CRB1\_2 (A2), Changeling\_2 (A2), Crucio\_3 (A2), Deloris\_2 (A2), FiringLine\_3 (A2), First\_002 (A2), LadyBird\_2 (A2), Loko\_3 (A2), Miko\_3 (A2), Power\_3 (A2), Rachaly\_3 (A2), RedRock\_2 (A2), SemperFi\_3 (A2), SnapTap\_3 (A2), SweetiePie\_3 (A2), Turbido\_3 (A2), WeiHuaDA\_3 (A2), Whabigail7\_3 (A2),

### Summary by clusters:

There are 2 clusters represented in this pham: A15, A2,

Info for manual annotations of cluster A15:

- Start number 13 was manually annotated 14 times for cluster A15.

Info for manual annotations of cluster A2:

- Start number 12 was manually annotated 1 time for cluster A2.
- Start number 14 was manually annotated 17 times for cluster A2.

### Gene Information:

Gene: 20ES\_2 Start: 1591, Stop: 2184, Start Num: 14

Candidate Starts for 20ES\_2:

(10, 1240), (Start: 14 @1591 has 17 MA's), (16, 1672), (21, 1789), (27, 1972), (28, 1981), (29, 1987), (32, 2005), (34, 2032), (36, 2062), (38, 2128), (41, 2164), (42, 2170),

Gene: Anaysia\_2 Start: 1335, Stop: 1985, Start Num: 13

Candidate Starts for Anaysia\_2:

(11, 1098), (Start: 13 @1335 has 14 MA's), (18, 1575), (19, 1584), (21, 1596), (26, 1755), (28, 1788), (30, 1800), (32, 1812), (34, 1839), (36, 1869), (41, 1968),

Gene: AnnaL29\_2 Start: 1386, Stop: 1979, Start Num: 14

Candidate Starts for AnnaL29\_2:

(4, 729), (5, 741), (8, 849), (10, 1041), (Start: 14 @1386 has 17 MA's), (17, 1491), (20, 1575), (21, 1584), (22, 1596), (27, 1767), (28, 1776), (32, 1800), (33, 1812), (34, 1827), (41, 1959), (42, 1965),

Gene: Battleship\_3 Start: 1482, Stop: 2132, Start Num: 13

Candidate Starts for Battleship\_3:

(11, 1245), (Start: 13 @1482 has 14 MA's), (18, 1722), (19, 1731), (21, 1743), (26, 1902), (28, 1935), (30, 1947), (32, 1959), (34, 1986), (36, 2016), (41, 2115),

Gene: BobSwaget\_3 Start: 1631, Stop: 2224, Start Num: 14

Candidate Starts for BobSwaget\_3:

(4, 980), (5, 992), (7, 1031), (8, 1100), (10, 1292), (Start: 14 @1631 has 17 MA's), (21, 1829), (27, 2012), (28, 2021), (29, 2027), (32, 2045), (33, 2057), (34, 2072), (36, 2102), (41, 2204),

Gene: Boohoo\_2 Start: 1335, Stop: 1985, Start Num: 13

Candidate Starts for Boohoo\_2:

(11, 1098), (Start: 13 @1335 has 14 MA's), (18, 1575), (19, 1584), (21, 1596), (26, 1755), (28, 1788), (30, 1800), (32, 1812), (34, 1839), (36, 1869), (41, 1968),

Gene: CRB1\_2 Start: 1584, Stop: 2177, Start Num: 14

Candidate Starts for CRB1\_2:

(11, 1245), (Start: 14 @1584 has 17 MA's), (16, 1665), (21, 1782), (27, 1965), (28, 1974), (29, 1980), (33, 2010), (34, 2025), (36, 2055), (38, 2121), (41, 2157), (42, 2163),

Gene: Changeling\_2 Start: 1407, Stop: 2000, Start Num: 14

Candidate Starts for Changeling\_2:

(4, 750), (5, 762), (8, 870), (10, 1062), (Start: 14 @1407 has 17 MA's), (21, 1605), (22, 1617), (27, 1788), (28, 1797), (29, 1803), (32, 1821), (33, 1833), (34, 1848), (39, 1974), (41, 1980),

Gene: Crucio\_3 Start: 1675, Stop: 2268, Start Num: 14

Candidate Starts for Crucio\_3:

(10, 1336), (Start: 14 @1675 has 17 MA's), (15, 1723), (16, 1756), (27, 2056), (28, 2065), (29, 2071), (34, 2116), (35, 2128), (36, 2146), (39, 2242), (41, 2248), (42, 2254),

Gene: DekHockey33\_2 Start: 1482, Stop: 2132, Start Num: 13

Candidate Starts for DekHockey33\_2:

(11, 1245), (Start: 13 @1482 has 14 MA's), (18, 1722), (19, 1731), (21, 1743), (26, 1902), (28, 1935), (30, 1947), (32, 1959), (34, 1986), (36, 2016), (41, 2115),

Gene: Deloris\_2 Start: 1436, Stop: 2026, Start Num: 14

Candidate Starts for Deloris\_2:

(2, 737), (4, 791), (5, 803), (6, 839), (7, 842), (11, 1100), (Start: 14 @1436 has 17 MA's), (16, 1517), (21, 1634), (27, 1817), (28, 1826), (29, 1832), (34, 1877), (35, 1889), (36, 1907), (39, 2000), (41, 2006), (42, 2012),

Gene: Epsocamisio\_2 Start: 1335, Stop: 1985, Start Num: 13

Candidate Starts for Epsocamisio\_2:

(11, 1098), (Start: 13 @1335 has 14 MA's), (18, 1575), (19, 1584), (21, 1596), (26, 1755), (28, 1788), (30, 1800), (32, 1812), (34, 1839), (36, 1869), (41, 1968),

Gene: FiringLine\_3 Start: 1676, Stop: 2269, Start Num: 14

Candidate Starts for FiringLine\_3:

(10, 1337), (Start: 14 @1676 has 17 MA's), (15, 1724), (16, 1757), (24, 1958), (27, 2057), (28, 2066), (29, 2072), (34, 2117), (35, 2129), (36, 2147), (39, 2243), (41, 2249), (42, 2255),

Gene: First\_002 Start: 1591, Stop: 2184, Start Num: 14

Candidate Starts for First\_002:

(10, 1240), (Start: 14 @1591 has 17 MA's), (16, 1672), (21, 1789), (27, 1972), (28, 1981), (29, 1987), (32, 2005), (34, 2032), (36, 2062), (38, 2128), (41, 2164), (42, 2170),

Gene: KatherineG\_2 Start: 1482, Stop: 2132, Start Num: 13

Candidate Starts for KatherineG\_2:

(11, 1245), (Start: 13 @1482 has 14 MA's), (18, 1722), (19, 1731), (21, 1743), (26, 1902), (28, 1935), (30, 1947), (32, 1959), (34, 1986), (36, 2016), (41, 2115),

Gene: LadyBird\_2 Start: 1574, Stop: 2164, Start Num: 14

Candidate Starts for LadyBird\_2:

(1, 803), (3, 905), (4, 929), (5, 941), (6, 977), (7, 980), (11, 1238), (Start: 14 @1574 has 17 MA's), (16, 1655), (21, 1772), (27, 1955), (28, 1964), (29, 1970), (31, 1982), (34, 2015), (35, 2027), (36, 2045), (39, 2138), (41, 2144), (42, 2150),

Gene: LastResort\_2 Start: 1335, Stop: 1985, Start Num: 13

Candidate Starts for LastResort\_2:

(11, 1098), (Start: 13 @1335 has 14 MA's), (18, 1575), (19, 1584), (21, 1596), (26, 1755), (28, 1788), (30, 1800), (32, 1812), (34, 1839), (36, 1869), (41, 1968),

Gene: Lokk\_3 Start: 1633, Stop: 2226, Start Num: 14

Candidate Starts for Lokk\_3:

(4, 982), (5, 994), (7, 1033), (8, 1102), (10, 1294), (Start: 14 @1633 has 17 MA's), (21, 1831), (27, 2014), (28, 2023), (29, 2029), (32, 2047), (33, 2059), (34, 2074), (36, 2104), (41, 2206),

Gene: Looper\_2 Start: 1335, Stop: 1985, Start Num: 13

Candidate Starts for Looper\_2:

(11, 1098), (Start: 13 @1335 has 14 MA's), (18, 1575), (19, 1584), (21, 1596), (26, 1755), (28, 1788), (30, 1800), (32, 1812), (34, 1839), (36, 1869), (41, 1968),

Gene: Miko\_3 Start: 1611, Stop: 2204, Start Num: 14

Candidate Starts for Miko\_3:

(4, 960), (5, 972), (7, 1011), (8, 1080), (10, 1272), (Start: 14 @1611 has 17 MA's), (21, 1809), (27, 1992), (28, 2001), (29, 2007), (32, 2025), (33, 2037), (34, 2052), (36, 2082), (41, 2184),

Gene: MinecraftSteve\_3 Start: 1482, Stop: 2132, Start Num: 13

Candidate Starts for MinecraftSteve\_3:

(11, 1245), (Start: 13 @1482 has 14 MA's), (18, 1722), (19, 1731), (21, 1743), (26, 1902), (28, 1935), (30, 1947), (32, 1959), (34, 1986), (36, 2016), (41, 2115),

Gene: Oofda\_2 Start: 1336, Stop: 1989, Start Num: 13

Candidate Starts for Oofda\_2:

(11, 1099), (Start: 13 @1336 has 14 MA's), (21, 1597), (22, 1609), (23, 1639), (26, 1756), (32, 1813), (34, 1840), (39, 1966), (40, 1969), (41, 1972),

Gene: Power\_3 Start: 1675, Stop: 2268, Start Num: 14

Candidate Starts for Power\_3:

(10, 1336), (Start: 14 @1675 has 17 MA's), (15, 1723), (16, 1756), (27, 2056), (28, 2065), (29, 2071), (34, 2116), (35, 2128), (36, 2146), (39, 2242), (41, 2248), (42, 2254),

Gene: Rachaly\_3 Start: 1631, Stop: 2224, Start Num: 14

Candidate Starts for Rachaly\_3:

(4, 980), (5, 992), (7, 1031), (8, 1100), (10, 1292), (Start: 14 @1631 has 17 MA's), (21, 1829), (27, 2012), (28, 2021), (29, 2027), (32, 2045), (33, 2057), (34, 2072), (36, 2102), (41, 2204),

Gene: ReMo\_2 Start: 1335, Stop: 1985, Start Num: 13

Candidate Starts for ReMo\_2:

(11, 1098), (Start: 13 @1335 has 14 MA's), (18, 1575), (19, 1584), (21, 1596), (26, 1755), (28, 1788), (30, 1800), (32, 1812), (34, 1839), (36, 1869), (41, 1968),

Gene: RedRock\_2 Start: 1386, Stop: 1979, Start Num: 14

Candidate Starts for RedRock\_2:

(4, 729), (5, 741), (8, 849), (10, 1041), (Start: 14 @1386 has 17 MA's), (17, 1491), (20, 1575), (21, 1584), (22, 1596), (25, 1677), (27, 1767), (28, 1776), (32, 1800), (33, 1812), (34, 1827), (41, 1959), (42, 1965),

Gene: Rosalind\_2 Start: 1482, Stop: 2132, Start Num: 13

Candidate Starts for Rosalind\_2:

(11, 1245), (Start: 13 @1482 has 14 MA's), (18, 1722), (19, 1731), (21, 1743), (26, 1902), (28, 1935), (30, 1947), (32, 1959), (34, 1986), (36, 2016), (41, 2115),

Gene: SemperFi\_3 Start: 1670, Stop: 2263, Start Num: 14

Candidate Starts for SemperFi\_3:

(10, 1337), (Start: 14 @1670 has 17 MA's), (15, 1718), (16, 1751), (24, 1952), (27, 2051), (28, 2060), (29, 2066), (34, 2111), (35, 2123), (36, 2141), (39, 2237), (41, 2243), (42, 2249),

Gene: SnapTap\_3 Start: 1675, Stop: 2268, Start Num: 14

Candidate Starts for SnapTap\_3:

(10, 1336), (Start: 14 @1675 has 17 MA's), (15, 1723), (16, 1756), (24, 1957), (27, 2056), (28, 2065), (29, 2071), (34, 2116), (35, 2128), (36, 2146), (39, 2242), (41, 2248), (42, 2254),

Gene: Soups\_2 Start: 1482, Stop: 2132, Start Num: 13

Candidate Starts for Soups\_2:

(11, 1245), (Start: 13 @1482 has 14 MA's), (18, 1722), (19, 1731), (21, 1743), (26, 1902), (28, 1935), (30, 1947), (32, 1959), (34, 1986), (36, 2016), (41, 2115),

Gene: SweetiePie\_3 Start: 1676, Stop: 2269, Start Num: 14

Candidate Starts for SweetiePie\_3:

(10, 1337), (Start: 14 @1676 has 17 MA's), (15, 1724), (16, 1757), (27, 2057), (28, 2066), (29, 2072), (34, 2117), (35, 2129), (36, 2147), (39, 2243), (41, 2249), (42, 2255),

Gene: Switzerland\_2 Start: 1482, Stop: 2132, Start Num: 13

Candidate Starts for Switzerland\_2:

(11, 1245), (Start: 13 @1482 has 14 MA's), (18, 1722), (19, 1731), (21, 1743), (26, 1902), (28, 1935), (30, 1947), (32, 1959), (34, 1986), (36, 2016), (41, 2115),

Gene: Trixie\_2 Start: 1367, Stop: 2125, Start Num: 12

Candidate Starts for Trixie\_2:

(10, 1178), (Start: 12 @1367 has 1 MA's), (Start: 14 @1532 has 17 MA's), (21, 1730), (22, 1742), (27, 1913), (28, 1922), (32, 1946), (33, 1958), (34, 1973), (37, 2012), (38, 2069), (41, 2105), (42, 2111),

Gene: Turbido\_3 Start: 1662, Stop: 2252, Start Num: 14

Candidate Starts for Turbido\_3:

(4, 1011), (5, 1023), (6, 1059), (9, 1290), (11, 1320), (Start: 14 @1662 has 17 MA's), (16, 1743), (21, 1860), (27, 2043), (28, 2052), (29, 2058), (31, 2070), (34, 2103), (36, 2133), (39, 2226), (41, 2232), (42, 2238),

Gene: Waits\_2 Start: 1335, Stop: 1985, Start Num: 13

Candidate Starts for Waits\_2:

(11, 1098), (Start: 13 @1335 has 14 MA's), (18, 1575), (19, 1584), (21, 1596), (26, 1755), (28, 1788), (30, 1800), (32, 1812), (34, 1839), (36, 1869), (41, 1968),

Gene: WeiHuaDA\_3 Start: 1666, Stop: 2259, Start Num: 14

Candidate Starts for WeiHuaDA\_3:

(10, 1315), (Start: 14 @1666 has 17 MA's), (17, 1771), (21, 1864), (22, 1876), (27, 2047), (28, 2056), (32, 2080), (33, 2092), (34, 2107), (37, 2146), (38, 2203), (41, 2239), (42, 2245),

Gene: Whabigail7\_3 Start: 1659, Stop: 2249, Start Num: 14

Candidate Starts for Whabigail7\_3:

(4, 1011), (5, 1023), (6, 1059), (9, 1290), (11, 1320), (Start: 14 @1659 has 17 MA's), (16, 1740), (21, 1857), (27, 2040), (28, 2049), (29, 2055), (31, 2067), (34, 2100), (36, 2130), (39, 2223), (41, 2229), (42, 2235),