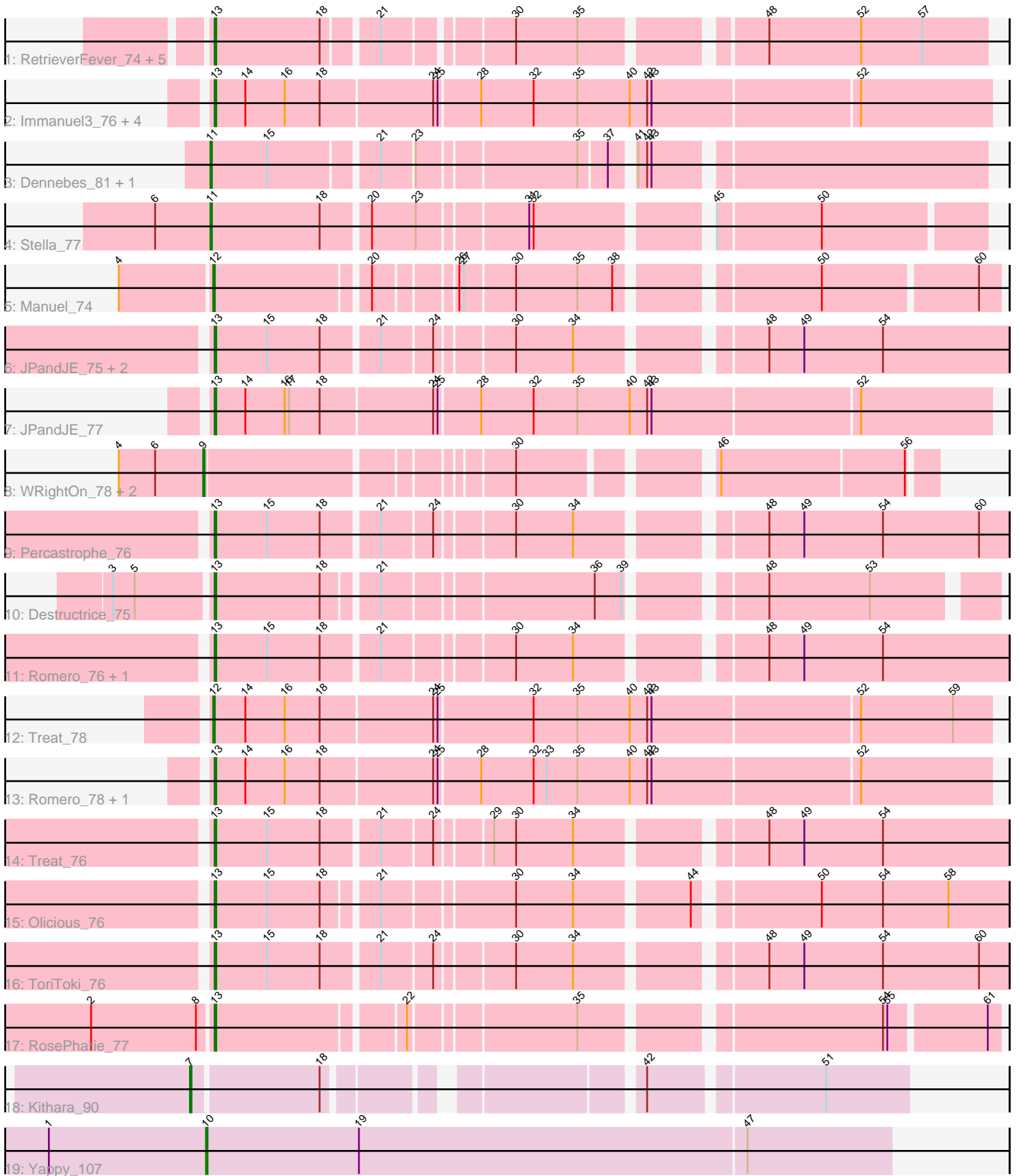


Pham 301584



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 301584 Report

This analysis was run 06/08/26 on database version 649.

Pham number 301584 has 35 members, 1 are drafts.

Phages represented in each track:

- Track 1 : RetrieverFever\_74, Gremlin23\_74, FlowerPower\_74, Fabian\_73, Geostin\_69, Vorvolakos\_75
- Track 2 : Immanuel3\_76, Percastrophe\_78, ZooBear\_78, ToriToki\_78, HaugeAnator\_78
- Track 3 : Dennebes\_81, Rideau\_80
- Track 4 : Stella\_77
- Track 5 : Manuel\_74
- Track 6 : JPandJE\_75, HaugeAnator\_76, ZooBear\_76
- Track 7 : JPandJE\_77
- Track 8 : WRightOn\_78, Kumquat\_74, Zeigle\_74
- Track 9 : Percastrophe\_76
- Track 10 : Destructrice\_75
- Track 11 : Romero\_76, Immanuel3\_74
- Track 12 : Treat\_78
- Track 13 : Romero\_78, Olicious\_78
- Track 14 : Treat\_76
- Track 15 : Olicious\_76
- Track 16 : ToriToki\_76
- Track 17 : RosePharie\_77
- Track 18 : Kithara\_90
- Track 19 : Yappy\_107

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

The start number called the most often in the published annotations is 13, it was called in 25 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Destructrice\_75, Fabian\_73, FlowerPower\_74, Geostin\_69, Gremlin23\_74, HaugeAnator\_76, HaugeAnator\_78, Immanuel3\_74, Immanuel3\_76, JPandJE\_75, JPandJE\_77, Olicious\_76, Olicious\_78, Percastrophe\_76, Percastrophe\_78, RetrieverFever\_74, Romero\_76, Romero\_78, RosePharie\_77, ToriToki\_76, ToriToki\_78, Treat\_76, Vorvolakos\_75, ZooBear\_76, ZooBear\_78,

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

- 

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

- Dennebes\_81, Kithara\_90, Kumquat\_74, Manuel\_74, Rideau\_80, Stella\_77, Treat\_78, WRightOn\_78, Yappy\_107, Zeigle\_74,

### Summary by start number:

Start 7:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara\_90 (singleton),

Start 9:

- Found in 3 of 35 ( 8.6% ) of genes in pham
- Manual Annotations of this start: 3 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumquat\_74 (BF), WRightOn\_78 (BF), Zeigle\_74 (BF),

Start 10:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yappy\_107 (singleton),

Start 11:

- Found in 3 of 35 ( 8.6% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dennebes\_81 (BF), Rideau\_80 (BF), Stella\_77 (BF),

Start 12:

- Found in 2 of 35 ( 5.7% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Manuel\_74 (BF), Treat\_78 (BF),

Start 13:

- Found in 25 of 35 ( 71.4% ) of genes in pham
- Manual Annotations of this start: 25 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Destructrice\_75 (BF), Fabian\_73 (BF), FlowerPower\_74 (BF), Geostin\_69 (BF), Gremlin23\_74 (BF), HaugeAnator\_76 (BF), HaugeAnator\_78 (BF), Immanuel3\_74 (BF), Immanuel3\_76 (BF), JPandJE\_75 (BF), JPandJE\_77 (BF), Olacious\_76 (BF), Olacious\_78 (BF), Percastrophe\_76 (BF), Percastrophe\_78 (BF), RetrieverFever\_74 (BF), Romero\_76 (BF), Romero\_78 (BF), RosePharie\_77 (BF), ToriToki\_76 (BF), ToriToki\_78 (BF), Treat\_76 (BF), Vorvolakos\_75 (BF), ZooBear\_76 (BF), ZooBear\_78 (BF),

## Summary by clusters:

There are 2 clusters represented in this pham: BF, singleton,

Info for manual annotations of cluster BF:

- Start number 9 was manually annotated 3 times for cluster BF.
- Start number 11 was manually annotated 2 times for cluster BF.
- Start number 12 was manually annotated 2 times for cluster BF.
- Start number 13 was manually annotated 25 times for cluster BF.

### **Gene Information:**

Gene: Dennebes\_81 Start: 39474, Stop: 38989, Start Num: 11

Candidate Starts for Dennebes\_81:

(Start: 11 @39474 has 2 MA's), (15, 39435), (21, 39366), (23, 39345), (35, 39243), (37, 39225), (41, 39213), (42, 39207), (43, 39204),

Gene: Destructrice\_75 Start: 38837, Stop: 38355, Start Num: 13

Candidate Starts for Destructrice\_75:

(3, 38900), (5, 38885), (Start: 13 @38837 has 25 MA's), (18, 38765), (21, 38732), (36, 38597), (39, 38579), (48, 38501), (53, 38432),

Gene: Fabian\_73 Start: 38951, Stop: 38469, Start Num: 13

Candidate Starts for Fabian\_73:

(Start: 13 @38951 has 25 MA's), (18, 38879), (21, 38846), (30, 38768), (35, 38726), (48, 38618), (52, 38555), (57, 38513),

Gene: FlowerPower\_74 Start: 38621, Stop: 38139, Start Num: 13

Candidate Starts for FlowerPower\_74:

(Start: 13 @38621 has 25 MA's), (18, 38549), (21, 38516), (30, 38438), (35, 38396), (48, 38288), (52, 38225), (57, 38183),

Gene: Geostin\_69 Start: 38621, Stop: 38139, Start Num: 13

Candidate Starts for Geostin\_69:

(Start: 13 @38621 has 25 MA's), (18, 38549), (21, 38516), (30, 38438), (35, 38396), (48, 38288), (52, 38225), (57, 38183),

Gene: Gremlin23\_74 Start: 38621, Stop: 38139, Start Num: 13

Candidate Starts for Gremlin23\_74:

(Start: 13 @38621 has 25 MA's), (18, 38549), (21, 38516), (30, 38438), (35, 38396), (48, 38288), (52, 38225), (57, 38183),

Gene: HaugeAnator\_76 Start: 38999, Stop: 38496, Start Num: 13

Candidate Starts for HaugeAnator\_76:

(Start: 13 @38999 has 25 MA's), (15, 38963), (18, 38927), (21, 38891), (24, 38858), (30, 38810), (34, 38771), (48, 38660), (49, 38636), (54, 38582),

Gene: HaugeAnator\_78 Start: 40177, Stop: 39656, Start Num: 13

Candidate Starts for HaugeAnator\_78:

(Start: 13 @40177 has 25 MA's), (14, 40156), (16, 40129), (18, 40105), (24, 40030), (25, 40027), (28, 40000), (32, 39964), (35, 39934), (40, 39898), (42, 39886), (43, 39883), (52, 39745),

Gene: Immanuel3\_76 Start: 40182, Stop: 39661, Start Num: 13

Candidate Starts for Immanuel3\_76:

(Start: 13 @40182 has 25 MA's), (14, 40161), (16, 40134), (18, 40110), (24, 40035), (25, 40032), (28, 40005), (32, 39969), (35, 39939), (40, 39903), (42, 39891), (43, 39888), (52, 39750),

Gene: Immanuel3\_74 Start: 39005, Stop: 38502, Start Num: 13

Candidate Starts for Immanuel3\_74:

(Start: 13 @39005 has 25 MA's), (15, 38969), (18, 38933), (21, 38897), (30, 38816), (34, 38777), (48, 38666), (49, 38642), (54, 38588),

Gene: JPandJE\_75 Start: 39350, Stop: 38847, Start Num: 13

Candidate Starts for JPandJE\_75:

(Start: 13 @39350 has 25 MA's), (15, 39314), (18, 39278), (21, 39242), (24, 39209), (30, 39161), (34, 39122), (48, 39011), (49, 38987), (54, 38933),

Gene: JPandJE\_77 Start: 40528, Stop: 40007, Start Num: 13

Candidate Starts for JPandJE\_77:

(Start: 13 @40528 has 25 MA's), (14, 40507), (16, 40480), (17, 40477), (18, 40456), (24, 40381), (25, 40378), (28, 40351), (32, 40315), (35, 40285), (40, 40249), (42, 40237), (43, 40234), (52, 40096),

Gene: Kithara\_90 Start: 59830, Stop: 59399, Start Num: 7

Candidate Starts for Kithara\_90:

(Start: 7 @59830 has 1 MA's), (18, 59746), (42, 59566), (51, 59455),

Gene: Kumquat\_74 Start: 38229, Stop: 37786, Start Num: 9

Candidate Starts for Kumquat\_74:

(4, 38286), (6, 38262), (Start: 9 @38229 has 3 MA's), (30, 38040), (46, 37926), (56, 37803),

Gene: Manuel\_74 Start: 38664, Stop: 38179, Start Num: 12

Candidate Starts for Manuel\_74:

(4, 38724), (Start: 12 @38664 has 2 MA's), (20, 38565), (26, 38517), (27, 38514), (30, 38481), (35, 38439), (38, 38415), (50, 38295), (60, 38193),

Gene: Olicious\_78 Start: 40180, Stop: 39659, Start Num: 13

Candidate Starts for Olicious\_78:

(Start: 13 @40180 has 25 MA's), (14, 40159), (16, 40132), (18, 40108), (24, 40033), (25, 40030), (28, 40003), (32, 39967), (33, 39958), (35, 39937), (40, 39901), (42, 39889), (43, 39886), (52, 39748),

Gene: Olicious\_76 Start: 39002, Stop: 38499, Start Num: 13

Candidate Starts for Olicious\_76:

(Start: 13 @39002 has 25 MA's), (15, 38966), (18, 38930), (21, 38897), (30, 38813), (34, 38774), (44, 38702), (50, 38627), (54, 38585), (58, 38540),

Gene: Percastrophe\_78 Start: 40112, Stop: 39591, Start Num: 13

Candidate Starts for Percastrophe\_78:

(Start: 13 @40112 has 25 MA's), (14, 40091), (16, 40064), (18, 40040), (24, 39965), (25, 39962), (28, 39935), (32, 39899), (35, 39869), (40, 39833), (42, 39821), (43, 39818), (52, 39680),

Gene: Percastrophe\_76 Start: 38934, Stop: 38431, Start Num: 13

Candidate Starts for Percastrophe\_76:

(Start: 13 @38934 has 25 MA's), (15, 38898), (18, 38862), (21, 38826), (24, 38793), (30, 38745), (34, 38706), (48, 38595), (49, 38571), (54, 38517), (60, 38451),

Gene: RetrieverFever\_74 Start: 38621, Stop: 38139, Start Num: 13

Candidate Starts for RetrieverFever\_74:

(Start: 13 @38621 has 25 MA's), (18, 38549), (21, 38516), (30, 38438), (35, 38396), (48, 38288), (52, 38225), (57, 38183),

Gene: Rideau\_80 Start: 39365, Stop: 38880, Start Num: 11

Candidate Starts for Rideau\_80:

(Start: 11 @39365 has 2 MA's), (15, 39326), (21, 39257), (23, 39236), (35, 39134), (37, 39116), (41, 39104), (42, 39098), (43, 39095),

Gene: Romero\_76 Start: 38995, Stop: 38492, Start Num: 13

Candidate Starts for Romero\_76:

(Start: 13 @38995 has 25 MA's), (15, 38959), (18, 38923), (21, 38887), (30, 38806), (34, 38767), (48, 38656), (49, 38632), (54, 38578),

Gene: Romero\_78 Start: 40173, Stop: 39652, Start Num: 13

Candidate Starts for Romero\_78:

(Start: 13 @40173 has 25 MA's), (14, 40152), (16, 40125), (18, 40101), (24, 40026), (25, 40023), (28, 39996), (32, 39960), (33, 39951), (35, 39930), (40, 39894), (42, 39882), (43, 39879), (52, 39741),

Gene: RosePharie\_77 Start: 39114, Stop: 38629, Start Num: 13

Candidate Starts for RosePharie\_77:

(2, 39192), (8, 39123), (Start: 13 @39114 has 25 MA's), (22, 38994), (35, 38889), (54, 38703), (55, 38700), (61, 38637),

Gene: Stella\_77 Start: 39604, Stop: 39116, Start Num: 11

Candidate Starts for Stella\_77:

(6, 39637), (Start: 11 @39604 has 2 MA's), (18, 39529), (20, 39499), (23, 39469), (31, 39400), (32, 39397), (45, 39292), (50, 39223),

Gene: ToriToki\_76 Start: 38998, Stop: 38495, Start Num: 13

Candidate Starts for ToriToki\_76:

(Start: 13 @38998 has 25 MA's), (15, 38962), (18, 38926), (21, 38890), (24, 38857), (30, 38809), (34, 38770), (48, 38659), (49, 38635), (54, 38581), (60, 38515),

Gene: ToriToki\_78 Start: 40176, Stop: 39655, Start Num: 13

Candidate Starts for ToriToki\_78:

(Start: 13 @40176 has 25 MA's), (14, 40155), (16, 40128), (18, 40104), (24, 40029), (25, 40026), (28, 39999), (32, 39963), (35, 39933), (40, 39897), (42, 39885), (43, 39882), (52, 39744),

Gene: Treat\_78 Start: 40051, Stop: 39530, Start Num: 12

Candidate Starts for Treat\_78:

(Start: 12 @40051 has 2 MA's), (14, 40030), (16, 40003), (18, 39979), (24, 39904), (25, 39901), (32, 39838), (35, 39808), (40, 39772), (42, 39760), (43, 39757), (52, 39619), (59, 39556),

Gene: Treat\_76 Start: 38873, Stop: 38370, Start Num: 13

Candidate Starts for Treat\_76:

(Start: 13 @38873 has 25 MA's), (15, 38837), (18, 38801), (21, 38765), (24, 38732), (29, 38699), (30, 38684), (34, 38645), (48, 38534), (49, 38510), (54, 38456),

Gene: Vorvolakos\_75 Start: 38620, Stop: 38138, Start Num: 13

Candidate Starts for Vorvolakos\_75:

(Start: 13 @38620 has 25 MA's), (18, 38548), (21, 38515), (30, 38437), (35, 38395), (48, 38287), (52, 38224), (57, 38182),

Gene: WRightOn\_78 Start: 38385, Stop: 37942, Start Num: 9

Candidate Starts for WRightOn\_78:

(4, 38442), (6, 38418), (Start: 9 @38385 has 3 MA's), (30, 38196), (46, 38082), (56, 37959),

Gene: Yappy\_107 Start: 55269, Stop: 54802, Start Num: 10

Candidate Starts for Yappy\_107:

(1, 55377), (Start: 10 @55269 has 1 MA's), (19, 55164), (47, 54900),

Gene: Zeigle\_74 Start: 38229, Stop: 37786, Start Num: 9

Candidate Starts for Zeigle\_74:

(4, 38286), (6, 38262), (Start: 9 @38229 has 3 MA's), (30, 38040), (46, 37926), (56, 37803),

Gene: ZooBear\_78 Start: 40177, Stop: 39656, Start Num: 13

Candidate Starts for ZooBear\_78:

(Start: 13 @40177 has 25 MA's), (14, 40156), (16, 40129), (18, 40105), (24, 40030), (25, 40027), (28, 40000), (32, 39964), (35, 39934), (40, 39898), (42, 39886), (43, 39883), (52, 39745),

Gene: ZooBear\_76 Start: 38999, Stop: 38496, Start Num: 13

Candidate Starts for ZooBear\_76:

(Start: 13 @38999 has 25 MA's), (15, 38963), (18, 38927), (21, 38891), (24, 38858), (30, 38810), (34, 38771), (48, 38660), (49, 38636), (54, 38582),