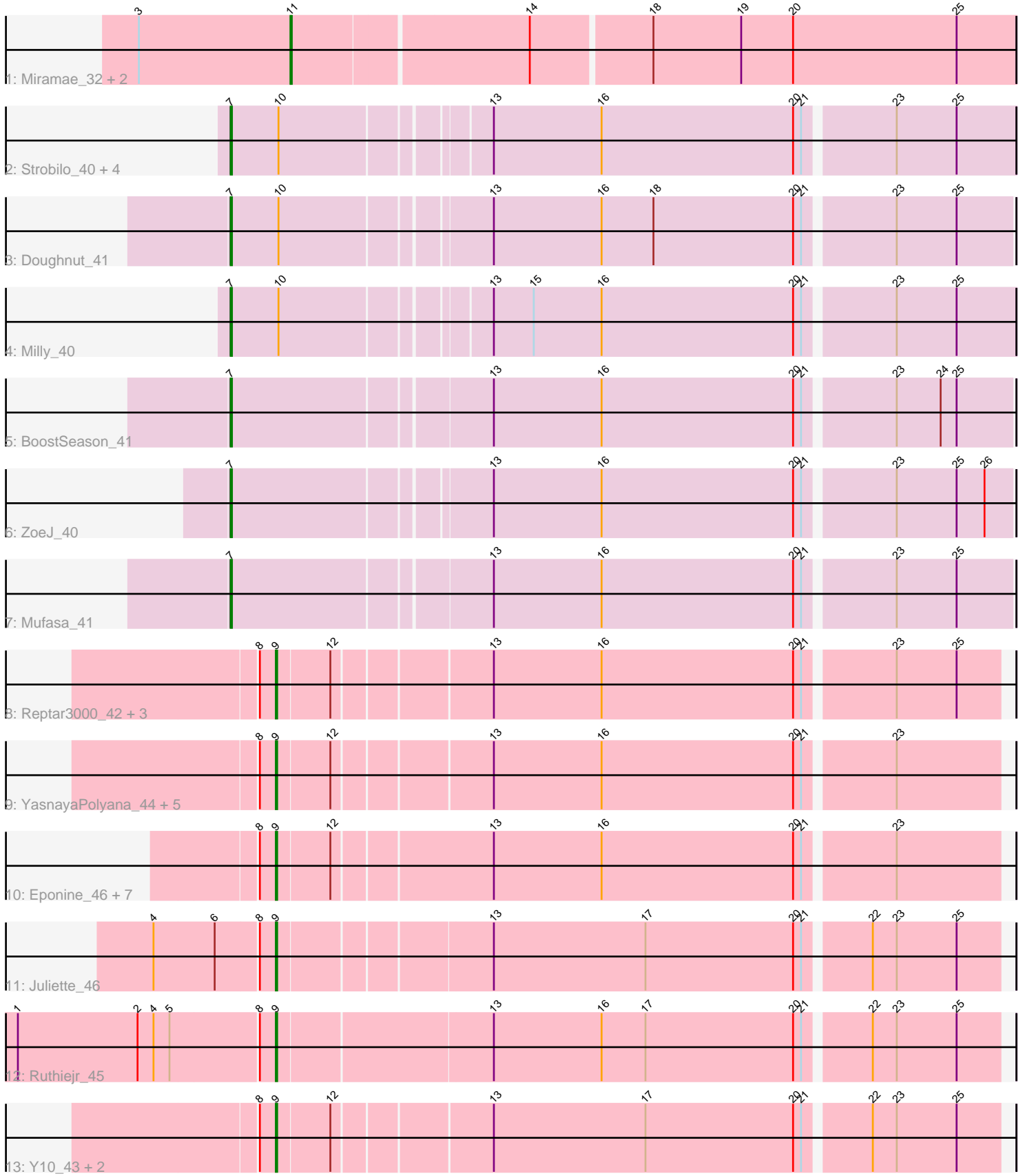


Pham 301562



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 301562 Report

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

Pham number 301562 has 36 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Miramae\_32, Stink\_33, AvatarAhPeg\_33
- Track 2 : Strobilo\_40, DismalStressor\_40, Marcoliusprime\_40, DismalFunk\_40, Findley\_40
- Track 3 : Doughnut\_41
- Track 4 : Milly\_40
- Track 5 : BoostSeason\_41
- Track 6 : ZoeJ\_40
- Track 7 : Mufasa\_41
- Track 8 : Reptar3000\_42, Bobquesha\_45, MissDaisy\_42, Patt\_41
- Track 9 : YasnayaPolyana\_44, OmniCritical\_43, Lebo14\_44, Mitti\_44, Taquito\_44, Wintermute\_44
- Track 10 : Eponine\_46, Cheetobro\_44, Chancellor\_44, Malthus\_45, Fionnbharth\_44, Slarp\_44, SamScheppers\_43, Kraw\_44
- Track 11 : Juliette\_46
- Track 12 : Ruthiejr\_45
- Track 13 : Y10\_43, Y2\_43, JF1\_44

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

The start number called the most often in the published annotations is 9, it was called in 22 of the 35 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Bobquesha\_45, Chancellor\_44, Cheetobro\_44, Eponine\_46, Fionnbharth\_44, JF1\_44, Juliette\_46, Kraw\_44, Lebo14\_44, Malthus\_45, MissDaisy\_42, Mitti\_44, OmniCritical\_43, Patt\_41, Reptar3000\_42, Ruthiejr\_45, SamScheppers\_43, Slarp\_44, Taquito\_44, Wintermute\_44, Y10\_43, Y2\_43, YasnayaPolyana\_44,

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

- 

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

- AvatarAhPeg\_33, BoostSeason\_41, DismalFunk\_40, DismalStressor\_40, Doughnut\_41, Findley\_40, Marcoliusprime\_40, Milly\_40, Miramae\_32, Mufasa\_41,

Stink\_33, Strobilo\_40, ZoeJ\_40,

### Summary by start number:

Start 7:

- Found in 10 of 36 ( 27.8% ) of genes in pham
- Manual Annotations of this start: 10 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason\_41 (K2), DismalFunk\_40 (K2), DismalStressor\_40 (K2), Doughnut\_41 (K2), Findley\_40 (K2), Marcoliusprime\_40 (K2), Milly\_40 (K2), Mufasa\_41 (K2), Strobilo\_40 (K2), ZoeJ\_40 (K2),

Start 9:

- Found in 23 of 36 ( 63.9% ) of genes in pham
- Manual Annotations of this start: 22 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobquesha\_45 (K4), Chancellor\_44 (K4), Cheetobro\_44 (K4), Eponine\_46 (K4), Fionnbharth\_44 (K4), JF1\_44 (K4), Juliette\_46 (K4), Kraw\_44 (K4), Lebo14\_44 (K4), Malthus\_45 (K4), MissDaisy\_42 (K4), Mitti\_44 (K4), OmniCritical\_43 (K4), Patt\_41 (K4), Reptar3000\_42 (K4), Ruthiejr\_45 (K4), SamScheppers\_43 (K4), Slarp\_44 (K4), Taquito\_44 (K4), Wintermute\_44 (K4), Y10\_43 (K4), Y2\_43 (K4), YasnayaPolyana\_44 (K4),

Start 11:

- Found in 3 of 36 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 3 of 35
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AvatarAhPeg\_33 (A4), Miramae\_32 (A4), Stink\_33 (A4),

### Summary by clusters:

There are 3 clusters represented in this pham: K2, A4, K4,

Info for manual annotations of cluster A4:

- Start number 11 was manually annotated 3 times for cluster A4.

Info for manual annotations of cluster K2:

- Start number 7 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K4:

- Start number 9 was manually annotated 22 times for cluster K4.

### Gene Information:

Gene: AvatarAhPeg\_33 Start: 25688, Stop: 25158, Start Num: 11

Candidate Starts for AvatarAhPeg\_33:

(3, 25802), (Start: 11 @25688 has 3 MA's), (14, 25517), (18, 25430), (19, 25364), (20, 25325), (25, 25202),

Gene: Bobquesha\_45 Start: 32677, Stop: 32156, Start Num: 9  
Candidate Starts for Bobquesha\_45:  
(8, 32689), (Start: 9 @32677 has 22 MA's), (12, 32638), (13, 32527), (16, 32446), (20, 32302), (21, 32296), (23, 32233), (25, 32188),

Gene: BoostSeason\_41 Start: 31967, Stop: 31401, Start Num: 7  
Candidate Starts for BoostSeason\_41:  
(Start: 7 @31967 has 10 MA's), (13, 31781), (16, 31700), (20, 31556), (21, 31550), (23, 31487), (24, 31454), (25, 31442),

Gene: Chancellor\_44 Start: 33293, Stop: 32769, Start Num: 9  
Candidate Starts for Chancellor\_44:  
(8, 33305), (Start: 9 @33293 has 22 MA's), (12, 33254), (13, 33140), (16, 33059), (20, 32915), (21, 32909), (23, 32846),

Gene: Cheetobro\_44 Start: 33290, Stop: 32766, Start Num: 9  
Candidate Starts for Cheetobro\_44:  
(8, 33302), (Start: 9 @33290 has 22 MA's), (12, 33251), (13, 33137), (16, 33056), (20, 32912), (21, 32906), (23, 32843),

Gene: DismalFunk\_40 Start: 32057, Stop: 31494, Start Num: 7  
Candidate Starts for DismalFunk\_40:  
(Start: 7 @32057 has 10 MA's), (10, 32021), (13, 31877), (16, 31796), (20, 31652), (21, 31646), (23, 31583), (25, 31538),

Gene: DismalStressor\_40 Start: 32057, Stop: 31494, Start Num: 7  
Candidate Starts for DismalStressor\_40:  
(Start: 7 @32057 has 10 MA's), (10, 32021), (13, 31877), (16, 31796), (20, 31652), (21, 31646), (23, 31583), (25, 31538),

Gene: Doughnut\_41 Start: 31954, Stop: 31391, Start Num: 7  
Candidate Starts for Doughnut\_41:  
(Start: 7 @31954 has 10 MA's), (10, 31918), (13, 31771), (16, 31690), (18, 31651), (20, 31546), (21, 31540), (23, 31477), (25, 31432),

Gene: Eponine\_46 Start: 34046, Stop: 33522, Start Num: 9  
Candidate Starts for Eponine\_46:  
(8, 34058), (Start: 9 @34046 has 22 MA's), (12, 34007), (13, 33893), (16, 33812), (20, 33668), (21, 33662), (23, 33599),

Gene: Findley\_40 Start: 32050, Stop: 31487, Start Num: 7  
Candidate Starts for Findley\_40:  
(Start: 7 @32050 has 10 MA's), (10, 32014), (13, 31870), (16, 31789), (20, 31645), (21, 31639), (23, 31576), (25, 31531),

Gene: Fionnbharth\_44 Start: 33443, Stop: 32922, Start Num: 9  
Candidate Starts for Fionnbharth\_44:  
(8, 33455), (Start: 9 @33443 has 22 MA's), (12, 33404), (13, 33293), (16, 33212), (20, 33068), (21, 33062), (23, 32999),

Gene: JF1\_44 Start: 33356, Stop: 32835, Start Num: 9  
Candidate Starts for JF1\_44:

(8, 33368), (Start: 9 @33356 has 22 MA's), (12, 33317), (13, 33206), (17, 33092), (20, 32981), (21, 32975), (22, 32930), (23, 32912), (25, 32867),

Gene: Juliette\_46 Start: 33515, Stop: 32994, Start Num: 9

Candidate Starts for Juliette\_46:

(4, 33602), (6, 33557), (8, 33527), (Start: 9 @33515 has 22 MA's), (13, 33365), (17, 33251), (20, 33140), (21, 33134), (22, 33089), (23, 33071), (25, 33026),

Gene: Kraw\_44 Start: 33205, Stop: 32681, Start Num: 9

Candidate Starts for Kraw\_44:

(8, 33217), (Start: 9 @33205 has 22 MA's), (12, 33166), (13, 33052), (16, 32971), (20, 32827), (21, 32821), (23, 32758),

Gene: Lebo14\_44 Start: 33468, Stop: 32947, Start Num: 9

Candidate Starts for Lebo14\_44:

(8, 33480), (Start: 9 @33468 has 22 MA's), (12, 33429), (13, 33318), (16, 33237), (20, 33093), (21, 33087), (23, 33024),

Gene: Malthus\_45 Start: 33205, Stop: 32681, Start Num: 9

Candidate Starts for Malthus\_45:

(8, 33217), (Start: 9 @33205 has 22 MA's), (12, 33166), (13, 33052), (16, 32971), (20, 32827), (21, 32821), (23, 32758),

Gene: Marcoliusprime\_40 Start: 32057, Stop: 31494, Start Num: 7

Candidate Starts for Marcoliusprime\_40:

(Start: 7 @32057 has 10 MA's), (10, 32021), (13, 31877), (16, 31796), (20, 31652), (21, 31646), (23, 31583), (25, 31538),

Gene: Milly\_40 Start: 32030, Stop: 31467, Start Num: 7

Candidate Starts for Milly\_40:

(Start: 7 @32030 has 10 MA's), (10, 31994), (13, 31850), (15, 31820), (16, 31769), (20, 31625), (21, 31619), (23, 31556), (25, 31511),

Gene: Miramae\_32 Start: 25351, Stop: 24821, Start Num: 11

Candidate Starts for Miramae\_32:

(3, 25465), (Start: 11 @25351 has 3 MA's), (14, 25180), (18, 25093), (19, 25027), (20, 24988), (25, 24865),

Gene: MissDaisy\_42 Start: 32689, Stop: 32168, Start Num: 9

Candidate Starts for MissDaisy\_42:

(8, 32701), (Start: 9 @32689 has 22 MA's), (12, 32650), (13, 32539), (16, 32458), (20, 32314), (21, 32308), (23, 32245), (25, 32200),

Gene: Mitti\_44 Start: 33380, Stop: 32859, Start Num: 9

Candidate Starts for Mitti\_44:

(8, 33392), (Start: 9 @33380 has 22 MA's), (12, 33341), (13, 33230), (16, 33149), (20, 33005), (21, 32999), (23, 32936),

Gene: Mufasa\_41 Start: 31957, Stop: 31391, Start Num: 7

Candidate Starts for Mufasa\_41:

(Start: 7 @31957 has 10 MA's), (13, 31771), (16, 31690), (20, 31546), (21, 31540), (23, 31477), (25, 31432),

Gene: OmniCritical\_43 Start: 33187, Stop: 32666, Start Num: 9

Candidate Starts for OmniCritical\_43:

(8, 33199), (Start: 9 @33187 has 22 MA's), (12, 33148), (13, 33037), (16, 32956), (20, 32812), (21, 32806), (23, 32743),

Gene: Patt\_41 Start: 32413, Stop: 31892, Start Num: 9

Candidate Starts for Patt\_41:

(8, 32425), (Start: 9 @32413 has 22 MA's), (12, 32374), (13, 32263), (16, 32182), (20, 32038), (21, 32032), (23, 31969), (25, 31924),

Gene: Reptar3000\_42 Start: 32404, Stop: 31883, Start Num: 9

Candidate Starts for Reptar3000\_42:

(8, 32416), (Start: 9 @32404 has 22 MA's), (12, 32365), (13, 32254), (16, 32173), (20, 32029), (21, 32023), (23, 31960), (25, 31915),

Gene: Ruthiejr\_45 Start: 33253, Stop: 32726, Start Num: 9

Candidate Starts for Ruthiejr\_45:

(1, 33442), (2, 33352), (4, 33340), (5, 33328), (8, 33265), (Start: 9 @33253 has 22 MA's), (13, 33097), (16, 33016), (17, 32983), (20, 32872), (21, 32866), (22, 32821), (23, 32803), (25, 32758),

Gene: SamScheppers\_43 Start: 33684, Stop: 33160, Start Num: 9

Candidate Starts for SamScheppers\_43:

(8, 33696), (Start: 9 @33684 has 22 MA's), (12, 33645), (13, 33531), (16, 33450), (20, 33306), (21, 33300), (23, 33237),

Gene: Slarp\_44 Start: 33293, Stop: 32769, Start Num: 9

Candidate Starts for Slarp\_44:

(8, 33305), (Start: 9 @33293 has 22 MA's), (12, 33254), (13, 33140), (16, 33059), (20, 32915), (21, 32909), (23, 32846),

Gene: Stink\_33 Start: 25688, Stop: 25158, Start Num: 11

Candidate Starts for Stink\_33:

(3, 25802), (Start: 11 @25688 has 3 MA's), (14, 25517), (18, 25430), (19, 25364), (20, 25325), (25, 25202),

Gene: Strobilo\_40 Start: 32031, Stop: 31468, Start Num: 7

Candidate Starts for Strobilo\_40:

(Start: 7 @32031 has 10 MA's), (10, 31995), (13, 31851), (16, 31770), (20, 31626), (21, 31620), (23, 31557), (25, 31512),

Gene: Taquito\_44 Start: 33679, Stop: 33155, Start Num: 9

Candidate Starts for Taquito\_44:

(8, 33691), (Start: 9 @33679 has 22 MA's), (12, 33640), (13, 33526), (16, 33445), (20, 33301), (21, 33295), (23, 33232),

Gene: Wintermute\_44 Start: 33441, Stop: 32920, Start Num: 9

Candidate Starts for Wintermute\_44:

(8, 33453), (Start: 9 @33441 has 22 MA's), (12, 33402), (13, 33291), (16, 33210), (20, 33066), (21, 33060), (23, 32997),

Gene: Y10\_43 Start: 33356, Stop: 32835, Start Num: 9

Candidate Starts for Y10\_43:

(8, 33368), (Start: 9 @33356 has 22 MA's), (12, 33317), (13, 33206), (17, 33092), (20, 32981), (21, 32975), (22, 32930), (23, 32912), (25, 32867),

Gene: Y2\_43 Start: 33356, Stop: 32835, Start Num: 9

Candidate Starts for Y2\_43:

(8, 33368), (Start: 9 @33356 has 22 MA's), (12, 33317), (13, 33206), (17, 33092), (20, 32981), (21, 32975), (22, 32930), (23, 32912), (25, 32867),

Gene: YasnayaPolyana\_44 Start: 33290, Stop: 32769, Start Num: 9

Candidate Starts for YasnayaPolyana\_44:

(8, 33302), (Start: 9 @33290 has 22 MA's), (12, 33251), (13, 33140), (16, 33059), (20, 32915), (21, 32909), (23, 32846),

Gene: ZoeJ\_40 Start: 31721, Stop: 31158, Start Num: 7

Candidate Starts for ZoeJ\_40:

(Start: 7 @31721 has 10 MA's), (13, 31538), (16, 31457), (20, 31313), (21, 31307), (23, 31244), (25, 31199), (26, 31178),