Pham 2381

|  |  | 3n |  |
| :--- | :--- | :--- | :--- |
| :Oksu_47+20 |  |  |  |


|  |  | and |  |
| :--- | :--- | :--- | :--- |
| E:Gorge_47+1 |  |  |  |


|  |  | ${ }^{23}$ |  |
| :--- | :--- | :--- | :--- |
| B:Totinger_47+10 |  |  |  |




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 2381 Report

This analysis was run 04/05/24 on database version 557.
Pham number 2381 has 42 members, 3 are drafts.
Phages represented in each track:

- Track 1 : Oksu_47, Zapner_56, Estave1_45, Scottish_45, Yorick_42, DirtMcgirt 43, Maravista_44, Kērsh_45, Bod̄Einwohner17̄_43, KingMidas_46, Avani_52, Mozy_53, Empress_45, Girafales_53, DeadP_48, Dañte_44, Wachhūnd_46, Jab̄bawokkie_58, Alexphander_49, Spoonbill_44, Roc̄kne_42
- Track 2 : Gōrge_47, ByChance_33
- Track 3 : Totingēr_47, Gandalp̄̄_44, Marker_48, Mahavrat_41, Harley_47, Sparkdehlily_47, TD̄anisky_47, OlympiaSaint_44, NormanBṻlbieJr_46, Hamulus_45, Chuckly_44
- Track 4 : Strokeseat_43, Hegedechwinu_43
- Track 5 : Spikelee_50
- Track 6 : Awesomesauce_43, Piper2020_43
- Track 7 : Florinda_53, Minnie_47
- Track 8 : Rialto_4 $\overline{8}$


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

The start number called the most often in the published annotations is 1 , it was called in 33 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alexphander_49, Avani_52, Awesomesauce_43, BodEinwohner17_43, ByChance_33, Chuckly_44, Dante_44, DeadP_48, DirtMcgirt_43, Empress_45, Estave1_45, Gandalph_44, Girafales_53, Gorge_ 47, Hamulus_45, Harley_47, Jabbawōkkie_58, Kersh_45, KingMidās_46, Mahāvrat_41, Maravista_44, Marker_48, Mozy_53, NōrmanBulbieJr_46, Oksu_47, OlympiaSaint_44, Piper2020_43,
Rockne_42, Scottish_45, Sparkdehlily_47, Spoonbill_44, TDanisky_47, Totinger_47, Wachhund_46, Yorick_42, Zapner_56,

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

- Spikelee_50,

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

- Florinda_53, Hegedechwinu_43, Minnie_47, Rialto_48, Strokeseat_43,


## Summary by start number:

Start 1:

- Found in 37 of 42 ( $88.1 \%$ ) of genes in pham
- Manual Annotations of this start: 33 of 39
- Called $97.3 \%$ of time when present
- Phage (with cluster) where this start called: Alexphander_49 (F1), Avani 52 (F2),

Awesomesauce 43 (F1), BodEinwohner17 43 (F1), ByChance_33 (F1), C̄huckly_44 (F1), Dante_44 (F1), DeadP_48 (F1), DirtMcgirt 43 (F1), Empress_ 45 (F1), Estave1_45(F1), Gandalph_44 (F1), Girafales_53 (F1), Gorge_47(F1), Hamulus_45 (F1), Harley 47 (F1), Jabbawokkie 58 (F2), Kersh 45 (F1), KingMidas_46 (F1), Mahavrat_41 (F1), Maravista_44 (F1), Marker_48 (F1), Mozy 53 (F1),
NormanBulbieJr_ 46 (F1), Oksu 47 (F1), OlympiaSaint 44 (F1), Piper2020_43 (F1), Rockne_42 (F1), Scottish_45 (F1), Sparkdehlily_47 (F1), Spoonbill 44 (F1),
TDanisky_47 (F1), Totinger_47 (F1), Wachhund_46 (F1), Yorick_42 (F1), Zapner_56 (F2),

Start 2:

- Found in 38 of 42 ( $90.5 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 39
- Called $5.3 \%$ of time when present
- Phage (with cluster) where this start called: Rialto_48 (F1), Spikelee_50 (F1),

Start 3:

- Found in 42 of 42 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 39
- Called $4.8 \%$ of time when present
- Phage (with cluster) where this start called: Florinda_53 (F1), Minnie_47 (F1),

Start 4:

- Found in 42 of 42 ( $100.0 \%$ ) of genes in pham
- Manual Annotations of this start: 2 of 39
- Called $4.8 \%$ of time when present
- Phage (with cluster) where this start called: Hegedechwinu_43 (F1), Strokeseat_43 (F1),


## Summary by clusters:

There are 2 clusters represented in this pham: F1, F2,
Info for manual annotations of cluster F1:

- Start number 1 was manually annotated 30 times for cluster F1.
-Start number 2 was manually annotated 2 times for cluster F1.
-Start number 3 was manually annotated 2 times for cluster F1.
-Start number 4 was manually annotated 2 times for cluster F1.
Info for manual annotations of cluster F2:
-Start number 1 was manually annotated 3 times for cluster F2.


## Gene Information:

Gene: Alexphander_49 Start: 34941, Stop: 34795, Start Num: 1
Candidate Starts for Alexphander_49:
(Start: 1 @34941 has 33 MA's), (Start: 2 @34923 has 2 MA's), (Start: 3 @34920 has 2 MA's), (Start: 4 @34917 has 2 MA's),

Gene: Avani_52 Start: 34165, Stop: 34019, Start Num: 1
Candidate Starts for Avani_52:
(Start: 1 @34165 has 33 MA's), (Start: 2 @34147 has 2 MA's), (Start: 3 @34144 has 2 MA's), (Start: 4 @34141 has 2 MA's),

Gene: Awesomesauce_43 Start: 32799, Stop: 32647, Start Num: 1
Candidate Starts for Awesomesauce_43:
(Start: 1 @32799 has 33 MA's), (Start: 2 @32781 has 2 MA's), (Start: 3 @32778 has 2 MA's), (Start: 4 @32775 has 2 MA's), (6, 32661),

Gene: BodEinwohner17_43 Start: 34040, Stop: 33894, Start Num: 1
Candidate Starts for BodEinwohner17_43:
(Start: 1 @34040 has 33 MA's), (Start: 2 @34022 has 2 MA's), (Start: 3 @34019 has 2 MA's), (Start: 4 @34016 has 2 MA's),

Gene: ByChance_33 Start: 28822, Stop: 28676, Start Num: 1
Candidate Starts for ByChance_33:
(Start: 1 @28822 has 33 MA's), (Start: 2 @28804 has 2 MA's), (Start: 3 @28801 has 2 MA's), (Start: 4 @28798 has 2 MA's), (5, 28714),

Gene: Chuckly_44 Start: 34068, Stop: 33922, Start Num: 1
Candidate Starts for Chuckly_44:
(Start: 1 @34068 has 33 MA's), (Start: 2 @34050 has 2 MA's), (Start: 3 @34047 has 2 MA's), (Start: 4 @34044 has 2 MA's),

Gene: Dante_44 Start: 33804, Stop: 33658, Start Num: 1
Candidate Starts for Dante_44:
(Start: 1 @33804 has 33 MA's), (Start: 2 @33786 has 2 MA's), (Start: 3 @33783 has 2 MA's), (Start: 4 @33780 has 2 MA's),

Gene: DeadP_48 Start: 34478, Stop: 34332, Start Num: 1
Candidate Starts for DeadP_48:
(Start: 1 @34478 has 33 MA's), (Start: 2 @34460 has 2 MA's), (Start: 3 @34457 has 2 MA's), (Start: 4 @34454 has 2 MA's),

Gene: DirtMcgirt_43 Start: 33341, Stop: 33195, Start Num: 1
Candidate Starts for DirtMcgirt_43:
(Start: 1 @33341 has 33 MA's), (Start: 2 @33323 has 2 MA's), (Start: 3 @33320 has 2 MA's), (Start: 4 @33317 has 2 MA's),

Gene: Empress_45 Start: 35103, Stop: 34957, Start Num: 1
Candidate Starts for Empress_45:
(Start: 1 @35103 has 33 MA's), (Start: 2 @35085 has 2 MA's), (Start: 3 @35082 has 2 MA's), (Start: 4 @35079 has 2 MA's),

Gene: Estave1_45 Start: 33787, Stop: 33641, Start Num: 1 Candidate Starts for Estave1_45:
(Start: 1 @33787 has 33 MA's), (Start: 2 @33769 has 2 MA's), (Start: 3 @33766 has 2 MA's), (Start: 4 @33763 has 2 MA's),

Gene: Florinda_53 Start: 35078, Stop: 34953, Start Num: 3
Candidate Starts for Florinda_53:
(Start: 3 @35078 has 2 MA's), (Start: 4 @35075 has 2 MA's), (5, 34991),
Gene: Gandalph_44 Start: 33786, Stop: 33640, Start Num: 1
Candidate Starts for Gandalph_44:
(Start: 1 @33786 has 33 MA's), (Start: 2 @33768 has 2 MA's), (Start: 3 @33765 has 2 MA's), (Start: 4 @33762 has 2 MA's),

Gene: Girafales_53 Start: 34905, Stop: 34759, Start Num: 1 Candidate Starts for Girafales_53:
(Start: 1 @34905 has 33 MA's), (Start: 2 @34887 has 2 MA's), (Start: 3 @34884 has 2 MA's), (Start: 4 @34881 has 2 MA's),

Gene: Gorge_47 Start: 34659, Stop: 34513, Start Num: 1
Candidate Starts for Gorge_47:
(Start: 1 @34659 has 33 MA's), (Start: 2 @34641 has 2 MA's), (Start: 3 @34638 has 2 MA's), (Start: 4 @34635 has 2 MA's), (5, 34551),

Gene: Hamulus_45 Start: 35061, Stop: 34915, Start Num: 1
Candidate Starts for Hamulus_45:
(Start: 1 @35061 has 33 MA's), (Start: 2 @35043 has 2 MA's), (Start: 3 @35040 has 2 MA's), (Start: 4 @35037 has 2 MA's),

Gene: Harley_47 Start: 34414, Stop: 34268, Start Num: 1
Candidate Starts for Harley_47:
(Start: 1 @34414 has 33 MA's), (Start: 2 @34396 has 2 MA's), (Start: 3 @34393 has 2 MA's), (Start: 4 @34390 has 2 MA's),

Gene: Hegedechwinu_43 Start: 32810, Stop: 32688, Start Num: 4
Candidate Starts for Hegedechwinu_43:
(Start: 3 @32813 has 2 MA's), (Start: 4 @32810 has 2 MA's), (5, 32726),
Gene: Jabbawokkie_58 Start: 35191, Stop: 35045, Start Num: 1
Candidate Starts for Jabbawokkie_58:
(Start: 1 @35191 has 33 MA's), (Start: 2 @35173 has 2 MA's), (Start: 3 @35170 has 2 MA's), (Start: 4 @35167 has 2 MA's),

Gene: Kersh_45 Start: 35734, Stop: 35588, Start Num: 1
Candidate Starts for Kersh_45:
(Start: 1 @35734 has 33 MA's), (Start: 2 @35716 has 2 MA's), (Start: 3 @35713 has 2 MA's), (Start: 4 @35710 has 2 MA's),

Gene: KingMidas_46 Start: 35520, Stop: 35374, Start Num: 1
Candidate Starts for KingMidas_46:
(Start: 1 @35520 has 33 MA's), (Start: 2 @35502 has 2 MA's), (Start: 3 @35499 has 2 MA's), (Start: 4 @35496 has 2 MA's),

Gene: Mahavrat_41 Start: 33392, Stop: 33246, Start Num: 1 Candidate Starts for Mahavrat_41:
(Start: 1 @33392 has 33 MA's), (Start: 2 @33374 has 2 MA's), (Start: 3 @33371 has 2 MA's), (Start: 4 @33368 has 2 MA's),

Gene: Maravista_44 Start: 34789, Stop: 34643, Start Num: 1
Candidate Starts for Maravista_44:
(Start: 1 @34789 has 33 MA's), (Start: 2 @34771 has 2 MA's), (Start: 3 @34768 has 2 MA's), (Start: 4 @34765 has 2 MA's),

Gene: Marker_48 Start: 33993, Stop: 33847, Start Num: 1
Candidate Starts for Marker_48:
(Start: 1 @33993 has 33 MA's), (Start: 2 @33975 has 2 MA's), (Start: 3 @33972 has 2 MA's), (Start: 4 @33969 has 2 MA's),

Gene: Minnie_47 Start: 35151, Stop: 35026, Start Num: 3
Candidate Starts for Minnie_47:
(Start: 3 @35151 has 2 MA's), (Start: 4 @35148 has 2 MA's), (5, 35064),
Gene: Mozy_53 Start: 36556, Stop: 36410, Start Num: 1
Candidate Starts for Mozy_53:
(Start: 1 @36556 has 33 MA's), (Start: 2 @36538 has 2 MA's), (Start: 3 @36535 has 2 MA's), (Start: 4 @36532 has 2 MA's),

Gene: NormanBulbieJr_46 Start: 35294, Stop: 35148, Start Num: 1
Candidate Starts for NormanBulbieJr_46:
(Start: 1 @35294 has 33 MA's), (Start: 2 @35276 has 2 MA's), (Start: 3 @35273 has 2 MA's), (Start: 4 @35270 has 2 MA's),

Gene: Oksu_47 Start: 35080, Stop: 34934, Start Num: 1
Candidate Starts for Oksu_47:
(Start: 1 @35080 has 33 MA's), (Start: 2 @35062 has 2 MA's), (Start: 3 @35059 has 2 MA's), (Start: 4 @35056 has 2 MA's),

Gene: OlympiaSaint_44 Start: 34137, Stop: 33991, Start Num: 1
Candidate Starts for OlympiaSaint_44:
(Start: 1 @34137 has 33 MA's), (Start: 2 @34119 has 2 MA's), (Start: 3 @34116 has 2 MA's), (Start: 4 @34113 has 2 MA's),

Gene: Piper2020_43 Start: 33520, Stop: 33368, Start Num: 1
Candidate Starts for Piper2020_43:
(Start: 1 @33520 has 33 MA's), (Start: 2 @33502 has 2 MA's), (Start: 3 @33499 has 2 MA's), (Start: 4 @33496 has 2 MA's), (6, 33382),

Gene: Rialto_48 Start: 36268, Stop: 36140, Start Num: 2
Candidate Starts for Rialto_48:
(Start: 2 @36268 has 2 MA's), (Start: 3 @36265 has 2 MA's), (Start: 4 @36262 has 2 MA's), (5, 36178),

Gene: Rockne_42 Start: 33509, Stop: 33363, Start Num: 1
Candidate Starts for Rockne_42:
(Start: 1 @33509 has 33 MA's), (Start: 2 @33491 has 2 MA's), (Start: 3 @33488 has 2 MA's), (Start: 4 @33485 has 2 MA's),

Gene: Scottish_45 Start: 34991, Stop: 34845, Start Num: 1

Candidate Starts for Scottish_45:
(Start: 1 @34991 has 33 MA's), (Start: 2 @34973 has 2 MA's), (Start: 3 @34970 has 2 MA's), (Start: 4 @34967 has 2 MA's),

Gene: Sparkdehlily_47 Start: 34911, Stop: 34765, Start Num: 1
Candidate Starts for Sparkdehlily_47:
(Start: 1 @34911 has 33 MA's), (Start: 2 @34893 has 2 MA's), (Start: 3 @34890 has 2 MA's), (Start: 4 @34887 has 2 MA's),

Gene: Spikelee_50 Start: 35028, Stop: 34900, Start Num: 2
Candidate Starts for Spikelee_50:
(Start: 1 @35046 has 33 MA's), (Start: 2 @35028 has 2 MA's), (Start: 3 @35025 has 2 MA's), (Start: 4 @35022 has 2 MA's),

Gene: Spoonbill_44 Start: 33933, Stop: 33787, Start Num: 1
Candidate Starts for Spoonbill_44:
(Start: 1 @33933 has 33 MA's), (Start: 2 @33915 has 2 MA's), (Start: 3 @33912 has 2 MA's), (Start: 4 @33909 has 2 MA's),

Gene: Strokeseat_43 Start: 33655, Stop: 33533, Start Num: 4
Candidate Starts for Strokeseat_43:
(Start: 3 @33658 has 2 MA's), (Start: 4 @33655 has 2 MA's), (5, 33571),
Gene: TDanisky_47 Start: 34911, Stop: 34765, Start Num: 1 Candidate Starts for TDanisky_47:
(Start: 1 @34911 has 33 MA's), (Start: 2 @34893 has 2 MA's), (Start: 3 @34890 has 2 MA's), (Start: 4 @34887 has 2 MA's),

Gene: Totinger_47 Start: 33825, Stop: 33679, Start Num: 1
Candidate Starts for Totinger_47:
(Start: 1 @33825 has 33 MA's), (Start: 2 @33807 has 2 MA's), (Start: 3 @33804 has 2 MA's), (Start: 4 @33801 has 2 MA's),

Gene: Wachhund_46 Start: 33978, Stop: 33832, Start Num: 1 Candidate Starts for Wachhund_46:
(Start: 1 @33978 has 33 MA's), (Start: 2 @33960 has 2 MA's), (Start: 3 @33957 has 2 MA's), (Start: 4 @33954 has 2 MA's),

Gene: Yorick_42 Start: 34020, Stop: 33874, Start Num: 1
Candidate Starts for Yorick_42:
(Start: 1 @34020 has 33 MA's), (Start: 2 @34002 has 2 MA's), (Start: 3 @33999 has 2 MA's), (Start: 4 @33996 has 2 MA's),

Gene: Zapner_56 Start: 35192, Stop: 35046, Start Num: 1
Candidate Starts for Zapner_56:
(Start: 1 @35192 has 33 MA's), (Start: 2 @35174 has 2 MA's), (Start: 3 @35171 has 2 MA's), (Start: 4 @35168 has 2 MA's),

