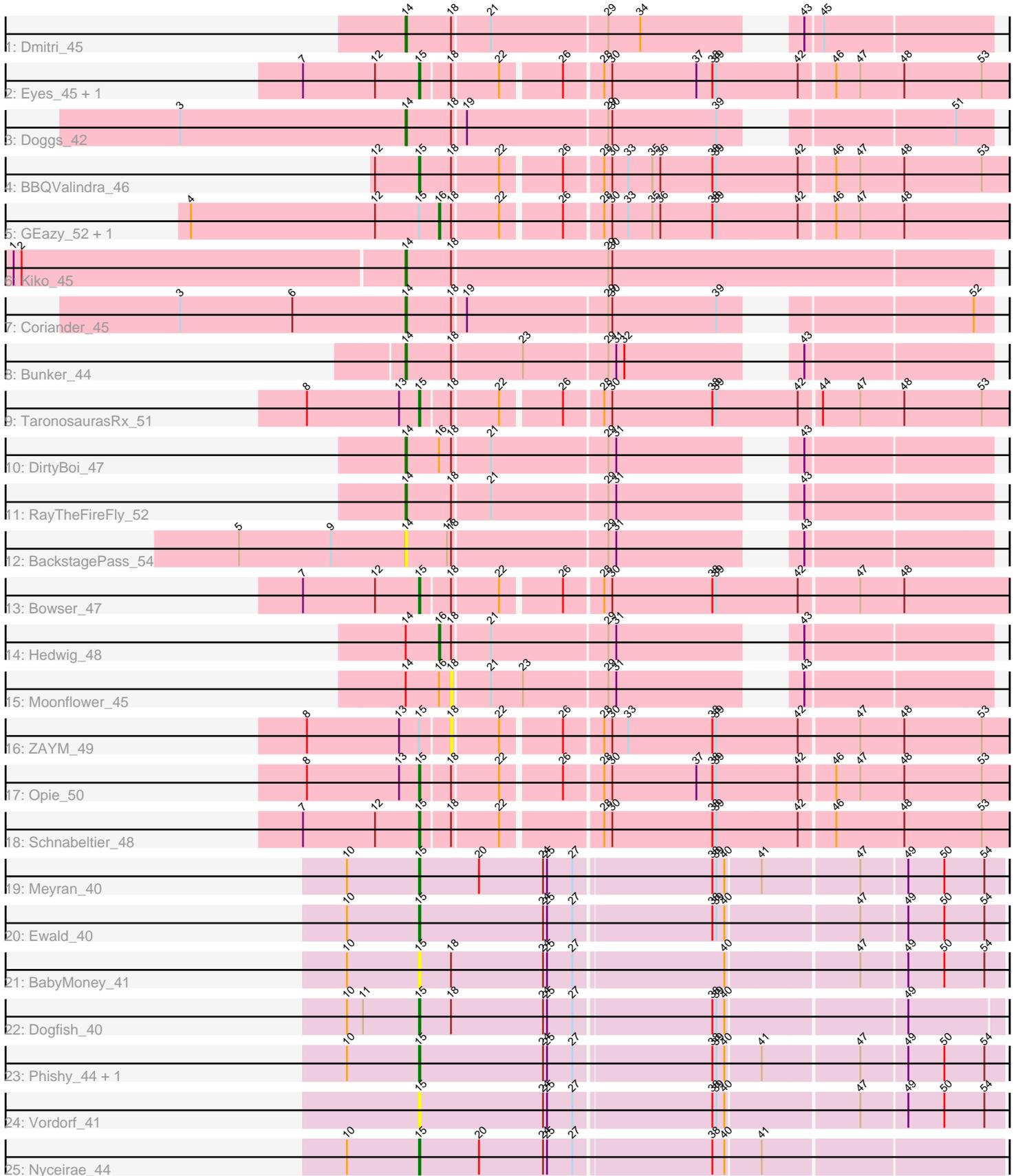


Pham 282398



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 282398 Report

This analysis was run 02/23/26 on database version 636.

Pham number 282398 has 28 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Dmitri\_45
- Track 2 : Eyes\_45, MagicMan\_47
- Track 3 : Doggs\_42
- Track 4 : BBQValindra\_46
- Track 5 : GEazy\_52, HannahD\_49
- Track 6 : Kiko\_45
- Track 7 : Coriander\_45
- Track 8 : Bunker\_44
- Track 9 : TaronosaurusRx\_51
- Track 10 : DirtyBoi\_47
- Track 11 : RayTheFireFly\_52
- Track 12 : BackstagePass\_54
- Track 13 : Bowser\_47
- Track 14 : Hedwig\_48
- Track 15 : Moonflower\_45
- Track 16 : ZAYM\_49
- Track 17 : Opie\_50
- Track 18 : Schnabeltier\_48
- Track 19 : Meyran\_40
- Track 20 : Ewald\_40
- Track 21 : BabyMoney\_41
- Track 22 : Dogfish\_40
- Track 23 : Phishy\_44, Manilisa\_43
- Track 24 : Vordorf\_41
- Track 25 : Nyceirae\_44

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

The start number called the most often in the published annotations is 15, it was called in 12 of the 22 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BBQValindra\_46, BabyMoney\_41, Bowser\_47, Dogfish\_40, Ewald\_40, Eyes\_45, MagicMan\_47, Manilisa\_43, Meyran\_40, Nyceirae\_44, Opie\_50, Phishy\_44,

Schnabeltier\_48, TaronosaurusRx\_51, Vordorf\_41,

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

- GEazy\_52, HannahD\_49, ZAYM\_49,

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

- BackstagePass\_54, Bunker\_44, Coriander\_45, DirtyBoi\_47, Dmitri\_45, Doggs\_42, Hedwig\_48, Kiko\_45, Moonflower\_45, RayTheFireFly\_52,

### Summary by start number:

Start 14:

- Found in 10 of 28 ( 35.7% ) of genes in pham
- Manual Annotations of this start: 7 of 22
- Called 80.0% of time when present
- Phage (with cluster) where this start called: BackstagePass\_54 (DB), Bunker\_44 (DB), Coriander\_45 (DB), DirtyBoi\_47 (DB), Dmitri\_45 (DB), Doggs\_42 (DB), Kiko\_45 (DB), RayTheFireFly\_52 (DB),

Start 15:

- Found in 18 of 28 ( 64.3% ) of genes in pham
- Manual Annotations of this start: 12 of 22
- Called 83.3% of time when present
- Phage (with cluster) where this start called: BBQValindra\_46 (DB), BabyMoney\_41 (DT), Bowser\_47 (DB), Dogfish\_40 (DT), Ewald\_40 (DT), Eyes\_45 (DB), MagicMan\_47 (DB), Manilisa\_43 (DT), Meyran\_40 (DT), Nyceirae\_44 (DT), Opie\_50 (DB), Phishy\_44 (DT), Schnabeltier\_48 (DB), TaronosaurusRx\_51 (DB), Vordorf\_41 (DT),

Start 16:

- Found in 5 of 28 ( 17.9% ) of genes in pham
- Manual Annotations of this start: 3 of 22
- Called 60.0% of time when present
- Phage (with cluster) where this start called: GEazy\_52 (DB), HannahD\_49 (DB), Hedwig\_48 (DB),

Start 18:

- Found in 22 of 28 ( 78.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Moonflower\_45 (DB), ZAYM\_49 (DB),

### Summary by clusters:

There are 2 clusters represented in this pham: DT, DB,

Info for manual annotations of cluster DB:

- Start number 14 was manually annotated 7 times for cluster DB.
- Start number 15 was manually annotated 7 times for cluster DB.
- Start number 16 was manually annotated 3 times for cluster DB.

Info for manual annotations of cluster DT:

- Start number 15 was manually annotated 5 times for cluster DT.

**Gene Information:**

Gene: BBQValindra\_46 Start: 34874, Stop: 35296, Start Num: 15

Candidate Starts for BBQValindra\_46:

(12, 34841), (Start: 15 @34874 has 12 MA's), (18, 34898), (22, 34931), (26, 34973), (28, 35000), (30, 35006), (33, 35018), (35, 35036), (36, 35042), (38, 35081), (39, 35084), (42, 35144), (46, 35168), (47, 35186), (48, 35219), (53, 35276),

Gene: BabyMoney\_41 Start: 32172, Stop: 32591, Start Num: 15

Candidate Starts for BabyMoney\_41:

(10, 32118), (Start: 15 @32172 has 12 MA's), (18, 32196), (24, 32265), (25, 32268), (27, 32286), (40, 32394), (47, 32487), (49, 32520), (50, 32547), (54, 32577),

Gene: BackstagePass\_54 Start: 35033, Stop: 35422, Start Num: 14

Candidate Starts for BackstagePass\_54:

(5, 34910), (9, 34979), (Start: 14 @35033 has 7 MA's), (17, 35063), (18, 35066), (29, 35177), (31, 35183), (43, 35288),

Gene: Bowser\_47 Start: 34683, Stop: 35102, Start Num: 15

Candidate Starts for Bowser\_47:

(7, 34596), (12, 34650), (Start: 15 @34683 has 12 MA's), (18, 34704), (22, 34737), (26, 34779), (28, 34806), (30, 34812), (38, 34887), (39, 34890), (42, 34950), (47, 34992), (48, 35025),

Gene: Bunker\_44 Start: 33977, Stop: 34366, Start Num: 14

Candidate Starts for Bunker\_44:

(Start: 14 @33977 has 7 MA's), (18, 34010), (23, 34061), (29, 34121), (31, 34127), (32, 34133), (43, 34232),

Gene: Coriander\_45 Start: 33477, Stop: 33866, Start Num: 14

Candidate Starts for Coriander\_45:

(3, 33309), (6, 33393), (Start: 14 @33477 has 7 MA's), (18, 33510), (19, 33519), (29, 33621), (30, 33624), (39, 33702), (52, 33852),

Gene: DirtyBoi\_47 Start: 33515, Stop: 33904, Start Num: 14

Candidate Starts for DirtyBoi\_47:

(Start: 14 @33515 has 7 MA's), (Start: 16 @33539 has 3 MA's), (18, 33548), (21, 33575), (29, 33659), (31, 33665), (43, 33770),

Gene: Dmitri\_45 Start: 35048, Stop: 35437, Start Num: 14

Candidate Starts for Dmitri\_45:

(Start: 14 @35048 has 7 MA's), (18, 35081), (21, 35108), (29, 35192), (34, 35216), (43, 35303), (45, 35315),

Gene: Dogfish\_40 Start: 31602, Stop: 32018, Start Num: 15

Candidate Starts for Dogfish\_40:

(10, 31548), (11, 31560), (Start: 15 @31602 has 12 MA's), (18, 31626), (24, 31695), (25, 31698), (27, 31716), (38, 31815), (39, 31818), (40, 31824), (49, 31950),

Gene: Doggs\_42 Start: 34204, Stop: 34593, Start Num: 14

Candidate Starts for Doggs\_42:

(3, 34036), (Start: 14 @34204 has 7 MA's), (18, 34237), (19, 34246), (29, 34348), (30, 34351), (39, 34429), (51, 34567),

Gene: Ewald\_40 Start: 31420, Stop: 31839, Start Num: 15

Candidate Starts for Ewald\_40:

(10, 31366), (Start: 15 @31420 has 12 MA's), (24, 31513), (25, 31516), (27, 31534), (38, 31633), (39, 31636), (40, 31642), (47, 31735), (49, 31768), (50, 31795), (54, 31825),

Gene: Eyes\_45 Start: 34727, Stop: 35146, Start Num: 15

Candidate Starts for Eyes\_45:

(7, 34640), (12, 34694), (Start: 15 @34727 has 12 MA's), (18, 34748), (22, 34781), (26, 34823), (28, 34850), (30, 34856), (37, 34919), (38, 34931), (39, 34934), (42, 34994), (46, 35018), (47, 35036), (48, 35069), (53, 35126),

Gene: GEazy\_52 Start: 35017, Stop: 35424, Start Num: 16

Candidate Starts for GEazy\_52:

(4, 34831), (12, 34969), (Start: 15 @35002 has 12 MA's), (Start: 16 @35017 has 3 MA's), (18, 35026), (22, 35059), (26, 35101), (28, 35128), (30, 35134), (33, 35146), (35, 35164), (36, 35170), (38, 35209), (39, 35212), (42, 35272), (46, 35296), (47, 35314), (48, 35347),

Gene: HannahD\_49 Start: 34384, Stop: 34791, Start Num: 16

Candidate Starts for HannahD\_49:

(4, 34198), (12, 34336), (Start: 15 @34369 has 12 MA's), (Start: 16 @34384 has 3 MA's), (18, 34393), (22, 34426), (26, 34468), (28, 34495), (30, 34501), (33, 34513), (35, 34531), (36, 34537), (38, 34576), (39, 34579), (42, 34639), (46, 34663), (47, 34681), (48, 34714),

Gene: Hedwig\_48 Start: 33963, Stop: 34328, Start Num: 16

Candidate Starts for Hedwig\_48:

(Start: 14 @33939 has 7 MA's), (Start: 16 @33963 has 3 MA's), (18, 33972), (21, 33999), (29, 34083), (31, 34089), (43, 34194),

Gene: Kiko\_45 Start: 33830, Stop: 34261, Start Num: 14

Candidate Starts for Kiko\_45:

(1, 33542), (2, 33548), (Start: 14 @33830 has 7 MA's), (18, 33863), (29, 33977), (30, 33980),

Gene: MagicMan\_47 Start: 34609, Stop: 35028, Start Num: 15

Candidate Starts for MagicMan\_47:

(7, 34522), (12, 34576), (Start: 15 @34609 has 12 MA's), (18, 34630), (22, 34663), (26, 34705), (28, 34732), (30, 34738), (37, 34801), (38, 34813), (39, 34816), (42, 34876), (46, 34900), (47, 34918), (48, 34951), (53, 35008),

Gene: Manilisa\_43 Start: 32562, Stop: 32981, Start Num: 15

Candidate Starts for Manilisa\_43:

(10, 32508), (Start: 15 @32562 has 12 MA's), (24, 32655), (25, 32658), (27, 32676), (38, 32775), (39, 32778), (40, 32784), (41, 32808), (47, 32877), (49, 32910), (50, 32937), (54, 32967),

Gene: Meyran\_40 Start: 32494, Stop: 32913, Start Num: 15

Candidate Starts for Meyran\_40:

(10, 32440), (Start: 15 @32494 has 12 MA's), (20, 32539), (24, 32587), (25, 32590), (27, 32608), (38, 32707), (39, 32710), (40, 32716), (41, 32740), (47, 32809), (49, 32842), (50, 32869), (54, 32899),

Gene: Moonflower\_45 Start: 34939, Stop: 35295, Start Num: 18

Candidate Starts for Moonflower\_45:

(Start: 14 @34906 has 7 MA's), (Start: 16 @34930 has 3 MA's), (18, 34939), (21, 34966), (23, 34990), (29, 35050), (31, 35056), (43, 35161),

Gene: Nyceirae\_44 Start: 32308, Stop: 32727, Start Num: 15

Candidate Starts for Nyceirae\_44:

(10, 32254), (Start: 15 @32308 has 12 MA's), (20, 32353), (24, 32401), (25, 32404), (27, 32422), (38, 32521), (40, 32530), (41, 32554),

Gene: Opie\_50 Start: 35554, Stop: 35973, Start Num: 15

Candidate Starts for Opie\_50:

(8, 35470), (13, 35539), (Start: 15 @35554 has 12 MA's), (18, 35575), (22, 35608), (26, 35650), (28, 35677), (30, 35683), (37, 35746), (38, 35758), (39, 35761), (42, 35821), (46, 35845), (47, 35863), (48, 35896), (53, 35953),

Gene: Phishy\_44 Start: 33491, Stop: 33910, Start Num: 15

Candidate Starts for Phishy\_44:

(10, 33437), (Start: 15 @33491 has 12 MA's), (24, 33584), (25, 33587), (27, 33605), (38, 33704), (39, 33707), (40, 33713), (41, 33737), (47, 33806), (49, 33839), (50, 33866), (54, 33896),

Gene: RayTheFireFly\_52 Start: 35103, Stop: 35492, Start Num: 14

Candidate Starts for RayTheFireFly\_52:

(Start: 14 @35103 has 7 MA's), (18, 35136), (21, 35163), (29, 35247), (31, 35253), (43, 35358),

Gene: Schnabeltier\_48 Start: 34802, Stop: 35221, Start Num: 15

Candidate Starts for Schnabeltier\_48:

(7, 34715), (12, 34769), (Start: 15 @34802 has 12 MA's), (18, 34823), (22, 34856), (28, 34925), (30, 34931), (38, 35006), (39, 35009), (42, 35069), (46, 35093), (48, 35144), (53, 35201),

Gene: TaronosaurusRx\_51 Start: 34127, Stop: 34546, Start Num: 15

Candidate Starts for TaronosaurusRx\_51:

(8, 34043), (13, 34112), (Start: 15 @34127 has 12 MA's), (18, 34148), (22, 34181), (26, 34223), (28, 34250), (30, 34256), (38, 34331), (39, 34334), (42, 34394), (44, 34409), (47, 34436), (48, 34469), (53, 34526),

Gene: Vordorf\_41 Start: 31757, Stop: 32176, Start Num: 15

Candidate Starts for Vordorf\_41:

(Start: 15 @31757 has 12 MA's), (24, 31850), (25, 31853), (27, 31871), (38, 31970), (39, 31973), (40, 31979), (47, 32072), (49, 32105), (50, 32132), (54, 32162),

Gene: ZAYM\_49 Start: 33896, Stop: 34294, Start Num: 18

Candidate Starts for ZAYM\_49:

(8, 33791), (13, 33860), (Start: 15 @33875 has 12 MA's), (18, 33896), (22, 33929), (26, 33971), (28, 33998), (30, 34004), (33, 34016), (38, 34079), (39, 34082), (42, 34142), (47, 34184), (48, 34217), (53, 34274),