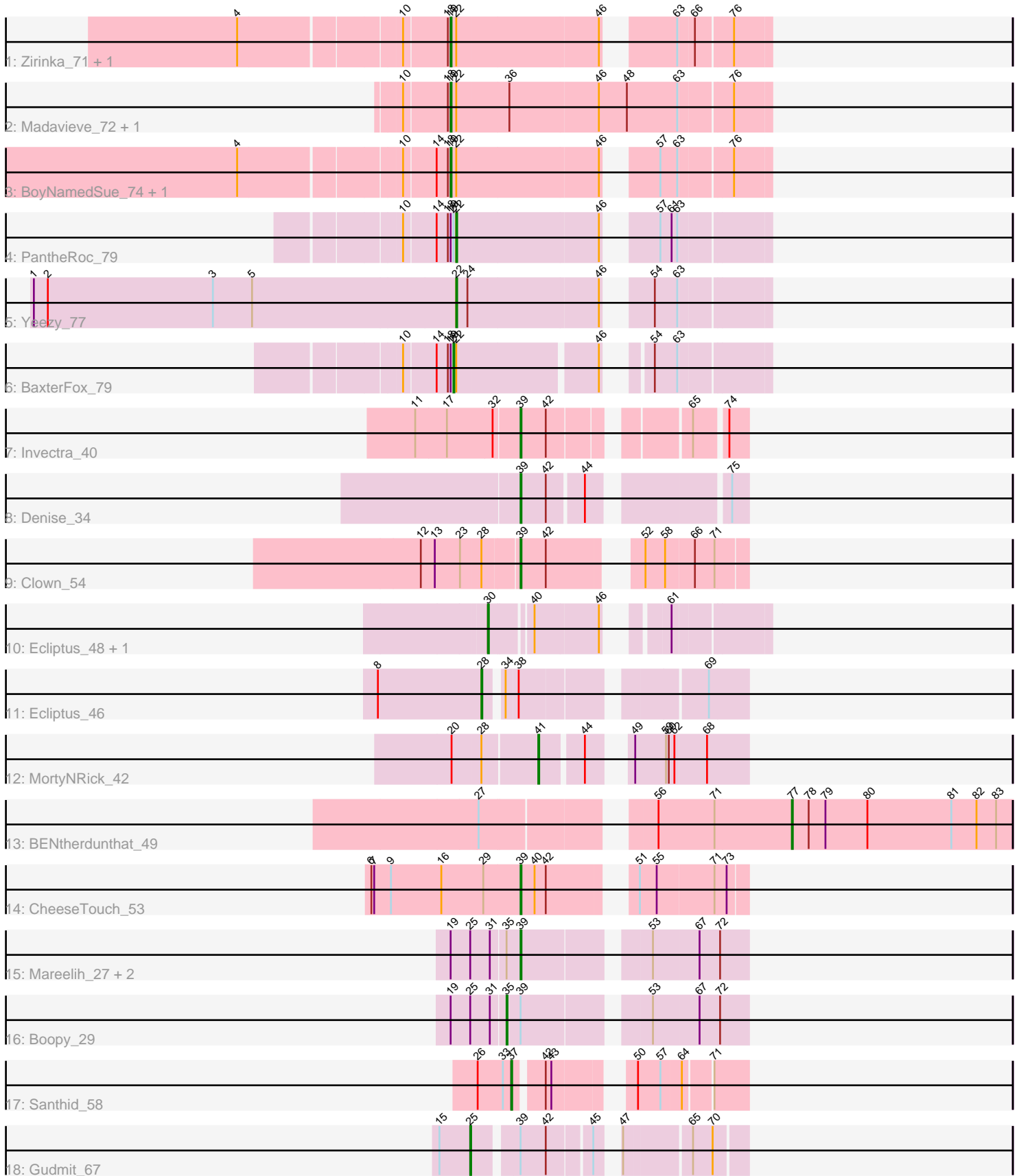


# Pham 311973



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 311973 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311973 has 24 members, 1 are drafts.

Phages represented in each track:

- Track 1 : Zirinka\_71, Bialota\_71
- Track 2 : Madavieve\_72, Maridalia\_76
- Track 3 : BoyNamedSue\_74, AlumE\_74
- Track 4 : PantheRoc\_79
- Track 5 : Yeezy\_77
- Track 6 : BaxterFox\_79
- Track 7 : Invectra\_40
- Track 8 : Denise\_34
- Track 9 : Clown\_54
- Track 10 : Ecliptus\_48, Apricot\_47
- Track 11 : Ecliptus\_46
- Track 12 : MortyNRick\_42
- Track 13 : BENtherdunthat\_49
- Track 14 : CheeseTouch\_53
- Track 15 : Mareelih\_27, BlueNGold\_27, Forza\_29
- Track 16 : Boopy\_29
- Track 17 : Santhid\_58
- Track 18 : Gudmit\_67

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

The start number called the most often in the published annotations is 39, it was called in 7 of the 23 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BlueNGold\_27, CheeseTouch\_53, Clown\_54, Denise\_34, Forza\_29, Invectra\_40, Mareelih\_27,

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

- Boopy\_29, Gudmit\_67,

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

- AlumE\_74, Apricot\_47, BENtherdunthat\_49, BaxterFox\_79, Bialota\_71, BoyNamedSue\_74, Ecliptus\_46, Ecliptus\_48, Madavieve\_72, Maridalia\_76,

MortyNRick\_42, PantheRoc\_79, Santhid\_58, Yeezy\_77, Zirinka\_71,

### Summary by start number:

#### Start 19:

- Found in 12 of 24 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 5 of 23
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AlumE\_74 (CZ1), Bialota\_71 (CZ1), BoyNamedSue\_74 (CZ1), Madavieve\_72 (CZ1), Maridalia\_76 (CZ1), Zirinka\_71 (CZ1),

#### Start 21:

- Found in 2 of 24 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BaxterFox\_79 (CZ3),

#### Start 22:

- Found in 9 of 24 ( 37.5% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 22.2% of time when present
- Phage (with cluster) where this start called: PantheRoc\_79 (CZ3), Yeezy\_77 (CZ3),

#### Start 25:

- Found in 5 of 24 ( 20.8% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Gudmit\_67 (singleton),

#### Start 28:

- Found in 3 of 24 ( 12.5% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Ecliptus\_46 (DN),

#### Start 30:

- Found in 2 of 24 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 2 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apricot\_47 (DN3), Ecliptus\_48 (DN),

#### Start 35:

- Found in 4 of 24 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Boopy\_29 (DS),

#### Start 37:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Santhid\_58 (DY),

Start 39:

- Found in 9 of 24 ( 37.5% ) of genes in pham
- Manual Annotations of this start: 7 of 23
- Called 77.8% of time when present
- Phage (with cluster) where this start called: BlueNGold\_27 (DS), CheeseTouch\_53 (DN1), Clown\_54 (DC2), Denise\_34 (CZ5), Forza\_29 (DS), Invectra\_40 (CZ4), Mareelih\_27 (DS),

Start 41:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MortyNRick\_42 (DN),

Start 77:

- Found in 1 of 24 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 1 of 23
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BENtherdunthat\_49 (DN1),

**Summary by clusters:**

There are 11 clusters represented in this pham: DN, singleton, CZ3, CZ1, CZ4, CZ5, DN1, DN3, DY, DC2, DS,

Info for manual annotations of cluster CZ1:

- Start number 19 was manually annotated 5 times for cluster CZ1.

Info for manual annotations of cluster CZ3:

- Start number 21 was manually annotated 1 time for cluster CZ3.
- Start number 22 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 39 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 39 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster DC2:

- Start number 39 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DN:

- Start number 28 was manually annotated 1 time for cluster DN.
- Start number 30 was manually annotated 1 time for cluster DN.
- Start number 41 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 39 was manually annotated 1 time for cluster DN1.
- Start number 77 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN3:

- Start number 30 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster DS:

- Start number 35 was manually annotated 1 time for cluster DS.
- Start number 39 was manually annotated 3 times for cluster DS.

Info for manual annotations of cluster DY:

- Start number 37 was manually annotated 1 time for cluster DY.

### **Gene Information:**

Gene: AlumE\_74 Start: 49657, Stop: 49953, Start Num: 19

Candidate Starts for AlumE\_74:

(4, 49447), (10, 49609), (14, 49642), (18, 49654), (Start: 19 @49657 has 5 MA's), (Start: 22 @49663 has 2 MA's), (46, 49810), (57, 49846), (63, 49864), (76, 49915),

Gene: Apricot\_47 Start: 31166, Stop: 31405, Start Num: 30

Candidate Starts for Apricot\_47:

(Start: 30 @31166 has 2 MA's), (40, 31205), (46, 31271), (61, 31310),

Gene: BENtherdunthat\_49 Start: 31546, Stop: 31782, Start Num: 77

Candidate Starts for BENtherdunthat\_49:

(27, 31252), (56, 31405), (71, 31465), (Start: 77 @31546 has 1 MA's), (78, 31564), (79, 31582), (80, 31627), (81, 31717), (82, 31744), (83, 31765),

Gene: BaxterFox\_79 Start: 50974, Stop: 51255, Start Num: 21

Candidate Starts for BaxterFox\_79:

(10, 50923), (14, 50956), (18, 50968), (Start: 19 @50971 has 5 MA's), (Start: 21 @50974 has 1 MA's), (Start: 22 @50977 has 2 MA's), (46, 51118), (54, 51142), (63, 51166),

Gene: Bialota\_71 Start: 49108, Stop: 49404, Start Num: 19

Candidate Starts for Bialota\_71:

(4, 48898), (10, 49060), (18, 49105), (Start: 19 @49108 has 5 MA's), (Start: 22 @49114 has 2 MA's), (46, 49261), (63, 49315), (66, 49330), (76, 49366),

Gene: BlueNGold\_27 Start: 9816, Stop: 9601, Start Num: 39

Candidate Starts for BlueNGold\_27:

(Start: 19 @9888 has 5 MA's), (Start: 25 @9867 has 1 MA's), (31, 9846), (Start: 35 @9831 has 1 MA's), (Start: 39 @9816 has 7 MA's), (53, 9699), (67, 9651), (72, 9630),

Gene: Boopy\_29 Start: 9843, Stop: 9613, Start Num: 35

Candidate Starts for Boopy\_29:

(Start: 19 @9900 has 5 MA's), (Start: 25 @9879 has 1 MA's), (31, 9858), (Start: 35 @9843 has 1 MA's), (Start: 39 @9828 has 7 MA's), (53, 9711), (67, 9663), (72, 9642),

Gene: BoyNamedSue\_74 Start: 49657, Stop: 49953, Start Num: 19

Candidate Starts for BoyNamedSue\_74:

(4, 49447), (10, 49609), (14, 49642), (18, 49654), (Start: 19 @49657 has 5 MA's), (Start: 22 @49663 has 2 MA's), (46, 49810), (57, 49846), (63, 49864), (76, 49915),

Gene: CheeseTouch\_53 Start: 30681, Stop: 30887, Start Num: 39

Candidate Starts for CheeseTouch\_53:

(6, 30522), (7, 30525), (9, 30543), (16, 30597), (29, 30642), (Start: 39 @30681 has 7 MA's), (40, 30696), (42, 30708), (51, 30777), (55, 30795), (71, 30855), (73, 30867),

Gene: Clown\_54 Start: 41043, Stop: 41246, Start Num: 39

Candidate Starts for Clown\_54:

(12, 40944), (13, 40959), (23, 40986), (Start: 28 @41007 has 1 MA's), (Start: 39 @41043 has 7 MA's), (42, 41070), (52, 41142), (58, 41163), (66, 41193), (71, 41214),

Gene: Denise\_34 Start: 27066, Stop: 27272, Start Num: 39

Candidate Starts for Denise\_34:

(Start: 39 @27066 has 7 MA's), (42, 27093), (44, 27129), (75, 27255),

Gene: Ecliptus\_48 Start: 33429, Stop: 33668, Start Num: 30

Candidate Starts for Ecliptus\_48:

(Start: 30 @33429 has 2 MA's), (40, 33468), (46, 33534), (61, 33573),

Gene: Ecliptus\_46 Start: 32573, Stop: 32812, Start Num: 28

Candidate Starts for Ecliptus\_46:

(8, 32462), (Start: 28 @32573 has 1 MA's), (34, 32588), (38, 32600), (69, 32771),

Gene: Forza\_29 Start: 9868, Stop: 9653, Start Num: 39

Candidate Starts for Forza\_29:

(Start: 19 @9940 has 5 MA's), (Start: 25 @9919 has 1 MA's), (31, 9898), (Start: 35 @9883 has 1 MA's), (Start: 39 @9868 has 7 MA's), (53, 9751), (67, 9703), (72, 9682),

Gene: Gudmit\_67 Start: 40055, Stop: 40297, Start Num: 25

Candidate Starts for Gudmit\_67:

(15, 40022), (Start: 25 @40055 has 1 MA's), (Start: 39 @40097 has 7 MA's), (42, 40124), (45, 40166), (47, 40178), (65, 40244), (70, 40265),

Gene: Invectra\_40 Start: 30370, Stop: 30570, Start Num: 39

Candidate Starts for Invectra\_40:

(11, 30262), (17, 30295), (32, 30343), (Start: 39 @30370 has 7 MA's), (42, 30397), (65, 30520), (74, 30550),

Gene: Madavieve\_72 Start: 48787, Stop: 49113, Start Num: 19

Candidate Starts for Madavieve\_72:

(10, 48739), (18, 48784), (Start: 19 @48787 has 5 MA's), (Start: 22 @48793 has 2 MA's), (36, 48847), (46, 48940), (48, 48970), (63, 49024), (76, 49075),

Gene: Mareelih\_27 Start: 9273, Stop: 9058, Start Num: 39

Candidate Starts for Mareelih\_27:

(Start: 19 @9345 has 5 MA's), (Start: 25 @9324 has 1 MA's), (31, 9303), (Start: 35 @9288 has 1 MA's), (Start: 39 @9273 has 7 MA's), (53, 9156), (67, 9108), (72, 9087),

Gene: Maridalia\_76 Start: 48667, Stop: 48993, Start Num: 19

Candidate Starts for Maridalia\_76:

(10, 48619), (18, 48664), (Start: 19 @48667 has 5 MA's), (Start: 22 @48673 has 2 MA's), (36, 48727), (46, 48820), (48, 48850), (63, 48904), (76, 48955),

Gene: MortyNRick\_42 Start: 32315, Stop: 32503, Start Num: 41

Candidate Starts for MortyNRick\_42:

(20, 32228), (Start: 28 @32258 has 1 MA's), (Start: 41 @32315 has 1 MA's), (44, 32357), (49, 32384), (59, 32417), (60, 32420), (62, 32426), (68, 32459),

Gene: PantheRoc\_79 Start: 50128, Stop: 50418, Start Num: 22

Candidate Starts for PantheRoc\_79:

(10, 50074), (14, 50107), (18, 50119), (Start: 19 @50122 has 5 MA's), (Start: 21 @50125 has 1 MA's), (Start: 22 @50128 has 2 MA's), (46, 50275), (57, 50311), (61, 50323), (63, 50329),

Gene: Santhid\_58 Start: 38223, Stop: 38426, Start Num: 37

Candidate Starts for Santhid\_58:

(26, 38187), (33, 38214), (Start: 37 @38223 has 1 MA's), (42, 38250), (43, 38256), (50, 38319), (57, 38343), (64, 38364), (71, 38391),

Gene: Yeezy\_77 Start: 47836, Stop: 48126, Start Num: 22

Candidate Starts for Yeezy\_77:

(1, 47386), (2, 47401), (3, 47578), (5, 47620), (Start: 22 @47836 has 2 MA's), (24, 47848), (46, 47983), (54, 48013), (63, 48037),

Gene: Zirinka\_71 Start: 49096, Stop: 49392, Start Num: 19

Candidate Starts for Zirinka\_71:

(4, 48886), (10, 49048), (18, 49093), (Start: 19 @49096 has 5 MA's), (Start: 22 @49102 has 2 MA's), (46, 49249), (63, 49303), (66, 49318), (76, 49354),