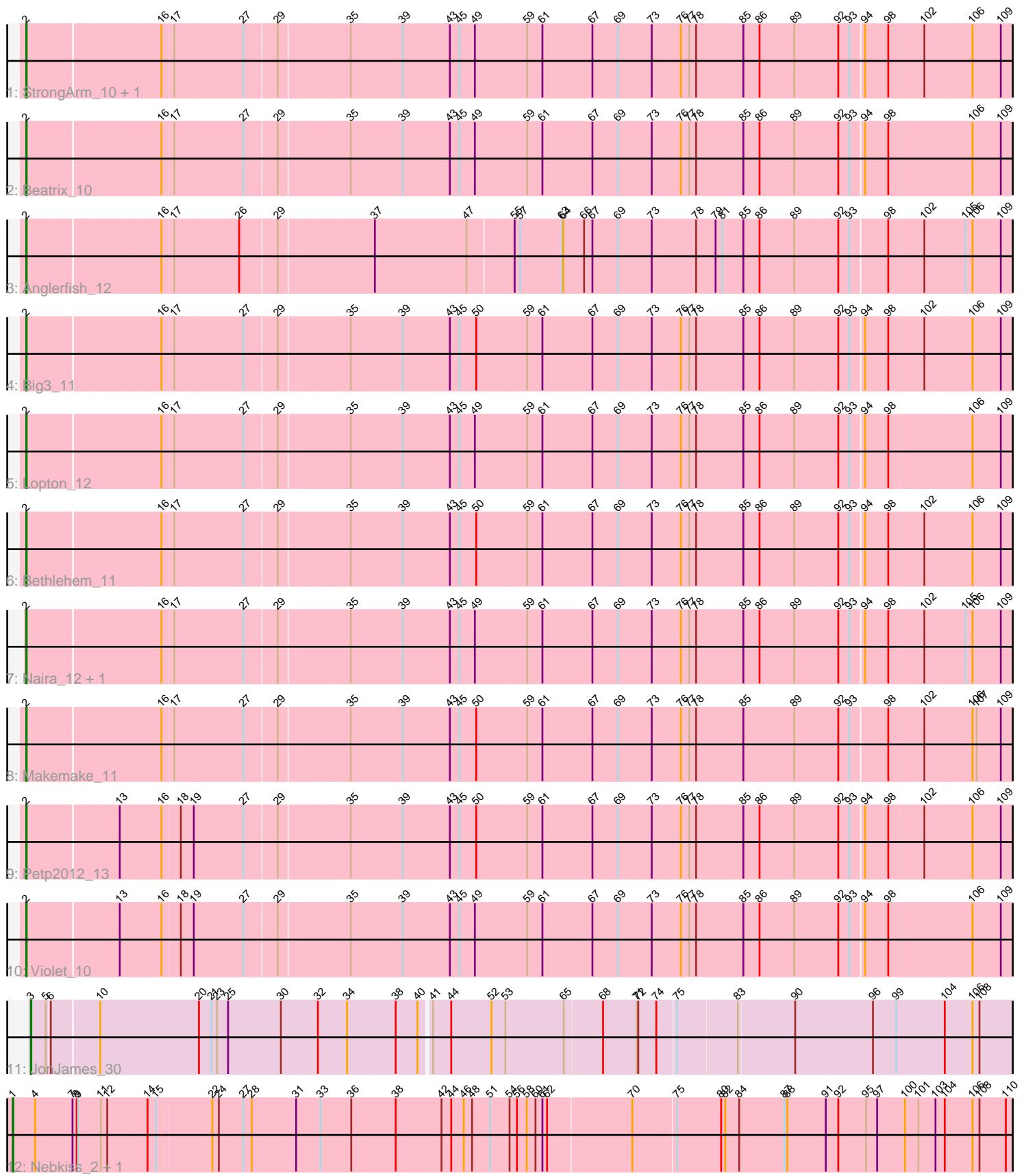


## Zoomed Pham 149197



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 149197 Report

This analysis was run 04/05/24 on database version 557.

Pham number 149197 has 15 members, 0 are drafts.

Phages represented in each track:

- Track 1 : StrongArm\_10, Bexan\_10
- Track 2 : Beatrix\_10
- Track 3 : Anglerfish\_12
- Track 4 : Big3\_11
- Track 5 : Lopton\_12
- Track 6 : Bethlehem\_11
- Track 7 : Naira\_12, Fenn\_12
- Track 8 : Makemake\_11
- Track 9 : Petp2012\_13
- Track 10 : Violet\_10
- Track 11 : JonJames\_30
- Track 12 : Nebkiss\_2, Gaia\_2

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

The start number called the most often in the published annotations is 2, it was called in 12 of the 15 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Anglerfish\_12, Beatrix\_10, Bethlehem\_11, Bexan\_10, Big3\_11, Fenn\_12, Lopton\_12, Makemake\_11, Naira\_12, Petp2012\_13, StrongArm\_10, Violet\_10,

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

- 

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

- Gaia\_2, JonJames\_30, Nebkiss\_2,

### **Summary by start number:**

Start 1:

- Found in 2 of 15 ( 13.3% ) of genes in pham
- Manual Annotations of this start: 2 of 15
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Gaia\_2 (X), Nebkiss\_2 (X),

Start 2:

- Found in 12 of 15 ( 80.0% ) of genes in pham
- Manual Annotations of this start: 12 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anglerfish\_12 (A1), Beatrix\_10 (A1), Bethlehem\_11 (A1), Bexan\_10 (A1), Big3\_11 (A1), Fenn\_12 (A1), Lopton\_12 (A1), Makemake\_11 (A1), Naira\_12 (A1), Petp2012\_13 (A1), StrongArm\_10 (A1), Violet\_10 (A1),

Start 3:

- Found in 1 of 15 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 1 of 15
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JonJames\_30 (DD),

### **Summary by clusters:**

There are 3 clusters represented in this pham: A1, X, DD,

Info for manual annotations of cluster A1:

- Start number 2 was manually annotated 12 times for cluster A1.

Info for manual annotations of cluster DD:

- Start number 3 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster X:

- Start number 1 was manually annotated 2 times for cluster X.

### **Gene Information:**

Gene: Anglerfish\_12 Start: 6959, Stop: 9664, Start Num: 2

Candidate Starts for Anglerfish\_12:

(Start: 2 @6959 has 12 MA's), (16, 7223), (17, 7247), (26, 7382), (29, 7454), (37, 7643), (47, 7841), (55, 7937), (57, 7949), (63, 8039), (64, 8042), (66, 8087), (67, 8105), (69, 8156), (73, 8228), (78, 8324), (79, 8366), (81, 8381), (85, 8426), (86, 8459), (89, 8534), (92, 8624), (93, 8648), (98, 8723), (102, 8792), (105, 8867), (106, 8879), (109, 8939), (116, 9164), (117, 9173), (118, 9185), (122, 9227), (124, 9248), (126, 9275), (133, 9383), (135, 9473), (140, 9578),

Gene: Beatrix\_10 Start: 6674, Stop: 9385, Start Num: 2

Candidate Starts for Beatrix\_10:

(Start: 2 @6674 has 12 MA's), (16, 6938), (17, 6962), (27, 7103), (29, 7169), (35, 7307), (39, 7418), (43, 7520), (45, 7541), (49, 7574), (59, 7685), (61, 7718), (67, 7826), (69, 7877), (73, 7949), (76, 8012), (77, 8030), (78, 8045), (85, 8147), (86, 8180), (89, 8255), (92, 8345), (93, 8369), (94, 8396), (98, 8444), (106, 8600), (109, 8660), (117, 8894), (118, 8906), (122, 8948), (124, 8969), (126, 8996), (133, 9104), (135, 9194), (140, 9299),

Gene: Bethlehem\_11 Start: 7260, Stop: 9971, Start Num: 2

Candidate Starts for Bethlehem\_11:

(Start: 2 @7260 has 12 MA's), (16, 7524), (17, 7548), (27, 7689), (29, 7755), (35, 7893), (39, 8004), (43, 8106), (45, 8127), (50, 8163), (59, 8271), (61, 8304), (67, 8412), (69, 8463), (73, 8535), (76, 8598), (77, 8616), (78, 8631), (85, 8733), (86, 8766), (89, 8841), (92, 8931), (93, 8955), (94, 8982), (98, 9030), (102, 9099), (106, 9186), (109, 9246), (116, 9471), (117, 9480), (118, 9492), (122, 9534), (124, 9555), (126, 9582), (133, 9690), (135, 9780), (140, 9885),

Gene: Bexan\_10 Start: 6674, Stop: 9385, Start Num: 2

Candidate Starts for Bexan\_10:

(Start: 2 @6674 has 12 MA's), (16, 6938), (17, 6962), (27, 7103), (29, 7169), (35, 7307), (39, 7418), (43, 7520), (45, 7541), (49, 7574), (59, 7685), (61, 7718), (67, 7826), (69, 7877), (73, 7949), (76, 8012), (77, 8030), (78, 8045), (85, 8147), (86, 8180), (89, 8255), (92, 8345), (93, 8369), (94, 8396), (98, 8444), (102, 8513), (106, 8600), (109, 8660), (116, 8885), (117, 8894), (118, 8906), (122, 8948), (124, 8969), (126, 8996), (133, 9104), (135, 9194), (140, 9299),

Gene: Big3\_11 Start: 6617, Stop: 9328, Start Num: 2

Candidate Starts for Big3\_11:

(Start: 2 @6617 has 12 MA's), (16, 6881), (17, 6905), (27, 7046), (29, 7112), (35, 7250), (39, 7361), (43, 7463), (45, 7484), (50, 7520), (59, 7628), (61, 7661), (67, 7769), (69, 7820), (73, 7892), (76, 7955), (77, 7973), (78, 7988), (85, 8090), (86, 8123), (89, 8198), (92, 8288), (93, 8312), (94, 8339), (98, 8387), (102, 8456), (106, 8543), (109, 8603), (117, 8837), (118, 8849), (122, 8891), (124, 8912), (126, 8939), (133, 9047), (135, 9137), (140, 9242),

Gene: Fenn\_12 Start: 7287, Stop: 9998, Start Num: 2

Candidate Starts for Fenn\_12:

(Start: 2 @7287 has 12 MA's), (16, 7551), (17, 7575), (27, 7716), (29, 7782), (35, 7920), (39, 8031), (43, 8133), (45, 8154), (49, 8187), (59, 8298), (61, 8331), (67, 8439), (69, 8490), (73, 8562), (76, 8625), (77, 8643), (78, 8658), (85, 8760), (86, 8793), (89, 8868), (92, 8958), (93, 8982), (94, 9009), (98, 9057), (102, 9126), (105, 9201), (106, 9213), (109, 9273), (117, 9507), (118, 9519), (122, 9561), (124, 9582), (126, 9609), (133, 9717), (135, 9807), (140, 9912),

Gene: Gaia\_2 Start: 559, Stop: 3372, Start Num: 1

Candidate Starts for Gaia\_2:

(Start: 1 @559 has 2 MA's), (4, 607), (7, 688), (8, 697), (9, 700), (11, 748), (12, 760), (14, 844), (15, 859), (22, 970), (24, 982), (27, 1033), (28, 1051), (31, 1141), (33, 1192), (36, 1258), (38, 1351), (42, 1444), (44, 1465), (46, 1492), (48, 1510), (51, 1549), (54, 1591), (56, 1606), (58, 1627), (60, 1645), (61, 1657), (62, 1666), (70, 1840), (75, 1927), (80, 2017), (82, 2026), (84, 2056), (87, 2149), (88, 2155), (91, 2233), (92, 2260), (95, 2320), (97, 2344), (100, 2404), (101, 2431), (103, 2467), (104, 2485), (106, 2542), (108, 2557), (110, 2614), (111, 2701), (113, 2779), (114, 2785), (119, 2884), (120, 2887), (124, 2938), (127, 2989), (128, 2995), (129, 3031), (131, 3043), (132, 3076), (133, 3082), (134, 3154), (136, 3178), (137, 3184), (138, 3190), (139, 3232), (140, 3277), (141, 3283), (142, 3298), (143, 3313), (144, 3358),

Gene: JonJames\_30 Start: 11893, Stop: 14622, Start Num: 3

Candidate Starts for JonJames\_30:

(Start: 3 @11893 has 1 MA's), (5, 11923), (6, 11929), (10, 12025), (20, 12238), (21, 12265), (23, 12277), (25, 12301), (30, 12415), (32, 12490), (34, 12553), (38, 12655), (40, 12700), (41, 12721), (44, 12760), (52, 12847), (53, 12877), (65, 12994), (68, 13072), (71, 13144), (72, 13147), (74, 13186), (75, 13225), (83, 13348), (90, 13459), (96, 13621), (99, 13669), (104, 13771), (106, 13831), (108, 13846), (112, 14011), (115, 14089), (121, 14170), (123, 14191), (125, 14218), (130, 14293), (133, 14335), (141, 14536), (143, 14569),

Gene: Lopton\_12 Start: 7342, Stop: 10053, Start Num: 2

Candidate Starts for Lopton\_12:

(Start: 2 @7342 has 12 MA's), (16, 7606), (17, 7630), (27, 7771), (29, 7837), (35, 7975), (39, 8086), (43, 8188), (45, 8209), (49, 8242), (59, 8353), (61, 8386), (67, 8494), (69, 8545), (73, 8617), (76, 8680), (77, 8698), (78, 8713), (85, 8815), (86, 8848), (89, 8923), (92, 9013), (93, 9037), (94, 9064), (98, 9112), (106, 9268), (109, 9328), (116, 9553), (117, 9562), (118, 9574), (122, 9616), (124, 9637), (126, 9664), (133, 9772), (135, 9862), (140, 9967),

Gene: Makemake\_11 Start: 7184, Stop: 9895, Start Num: 2

Candidate Starts for Makemake\_11:

(Start: 2 @7184 has 12 MA's), (16, 7448), (17, 7472), (27, 7613), (29, 7679), (35, 7817), (39, 7928), (43, 8030), (45, 8051), (50, 8087), (59, 8195), (61, 8228), (67, 8336), (69, 8387), (73, 8459), (76, 8522), (77, 8540), (78, 8555), (85, 8657), (89, 8765), (92, 8855), (93, 8879), (98, 8954), (102, 9023), (106, 9110), (107, 9119), (109, 9170), (117, 9404), (118, 9416), (122, 9458), (124, 9479), (126, 9506), (133, 9614), (135, 9704), (140, 9809),

Gene: Naira\_12 Start: 7287, Stop: 9998, Start Num: 2

Candidate Starts for Naira\_12:

(Start: 2 @7287 has 12 MA's), (16, 7551), (17, 7575), (27, 7716), (29, 7782), (35, 7920), (39, 8031), (43, 8133), (45, 8154), (49, 8187), (59, 8298), (61, 8331), (67, 8439), (69, 8490), (73, 8562), (76, 8625), (77, 8643), (78, 8658), (85, 8760), (86, 8793), (89, 8868), (92, 8958), (93, 8982), (94, 9009), (98, 9057), (102, 9126), (105, 9201), (106, 9213), (109, 9273), (117, 9507), (118, 9519), (122, 9561), (124, 9582), (126, 9609), (133, 9717), (135, 9807), (140, 9912),

Gene: Nebkiss\_2 Start: 560, Stop: 3373, Start Num: 1

Candidate Starts for Nebkiss\_2:

(Start: 1 @560 has 2 MA's), (4, 608), (7, 689), (8, 698), (9, 701), (11, 749), (12, 761), (14, 845), (15, 860), (22, 971), (24, 983), (27, 1034), (28, 1052), (31, 1142), (33, 1193), (36, 1259), (38, 1352), (42, 1445), (44, 1466), (46, 1493), (48, 1511), (51, 1550), (54, 1592), (56, 1607), (58, 1628), (60, 1646), (61, 1658), (62, 1667), (70, 1841), (75, 1928), (80, 2018), (82, 2027), (84, 2057), (87, 2150), (88, 2156), (91, 2234), (92, 2261), (95, 2321), (97, 2345), (100, 2405), (101, 2432), (103, 2468), (104, 2486), (106, 2543), (108, 2558), (110, 2615), (111, 2702), (113, 2780), (114, 2786), (119, 2885), (120, 2888), (124, 2939), (127, 2990), (128, 2996), (129, 3032), (131, 3044), (132, 3077), (133, 3083), (134, 3155), (136, 3179), (137, 3185), (138, 3191), (139, 3233), (140, 3278), (141, 3284), (142, 3299), (143, 3314), (144, 3359),

Gene: Petp2012\_13 Start: 6923, Stop: 9634, Start Num: 2

Candidate Starts for Petp2012\_13:

(Start: 2 @6923 has 12 MA's), (13, 7103), (16, 7187), (18, 7223), (19, 7250), (27, 7352), (29, 7418), (35, 7556), (39, 7667), (43, 7769), (45, 7790), (50, 7826), (59, 7934), (61, 7967), (67, 8075), (69, 8126), (73, 8198), (76, 8261), (77, 8279), (78, 8294), (85, 8396), (86, 8429), (89, 8504), (92, 8594), (93, 8618), (94, 8645), (98, 8693), (102, 8762), (106, 8849), (109, 8909), (116, 9134), (117, 9143), (118, 9155), (122, 9197), (124, 9218), (126, 9245), (133, 9353), (135, 9443), (140, 9548),

Gene: StrongArm\_10 Start: 6674, Stop: 9385, Start Num: 2

Candidate Starts for StrongArm\_10:

(Start: 2 @6674 has 12 MA's), (16, 6938), (17, 6962), (27, 7103), (29, 7169), (35, 7307), (39, 7418), (43, 7520), (45, 7541), (49, 7574), (59, 7685), (61, 7718), (67, 7826), (69, 7877), (73, 7949), (76, 8012), (77, 8030), (78, 8045), (85, 8147), (86, 8180), (89, 8255), (92, 8345), (93, 8369), (94, 8396), (98, 8444), (102, 8513), (106, 8600), (109, 8660), (116, 8885), (117, 8894), (118, 8906), (122, 8948), (124, 8969), (126, 8996), (133, 9104), (135, 9194), (140, 9299),

Gene: Violet\_10 Start: 6546, Stop: 9257, Start Num: 2

Candidate Starts for Violet\_10:

(Start: 2 @6546 has 12 MA's), (13, 6726), (16, 6810), (18, 6846), (19, 6873), (27, 6975), (29, 7041),  
(35, 7179), (39, 7290), (43, 7392), (45, 7413), (49, 7446), (59, 7557), (61, 7590), (67, 7698), (69,  
7749), (73, 7821), (76, 7884), (77, 7902), (78, 7917), (85, 8019), (86, 8052), (89, 8127), (92, 8217),  
(93, 8241), (94, 8268), (98, 8316), (106, 8472), (109, 8532), (116, 8757), (117, 8766), (118, 8778),  
(122, 8820), (124, 8841), (126, 8868), (133, 8976), (135, 9066), (140, 9171),