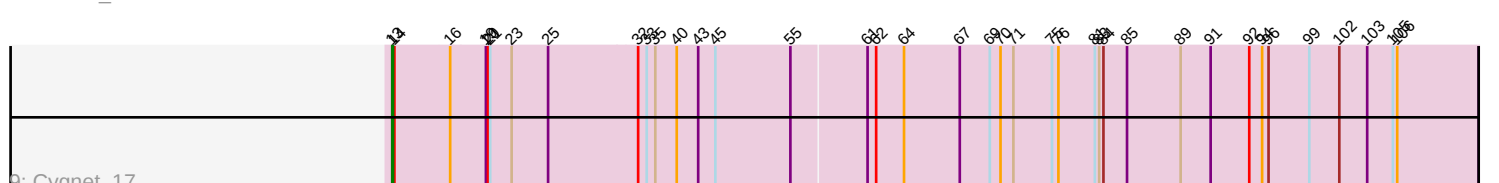
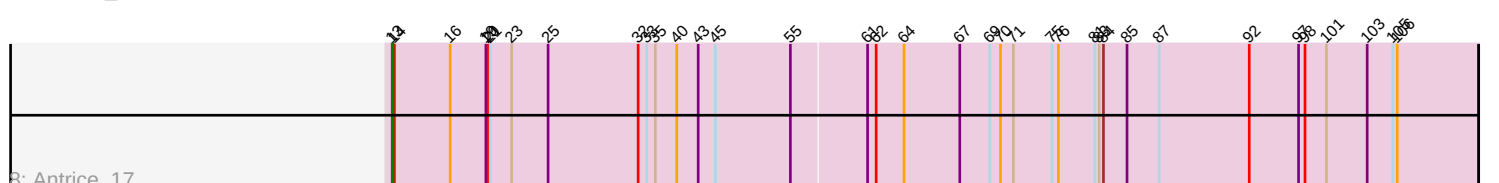
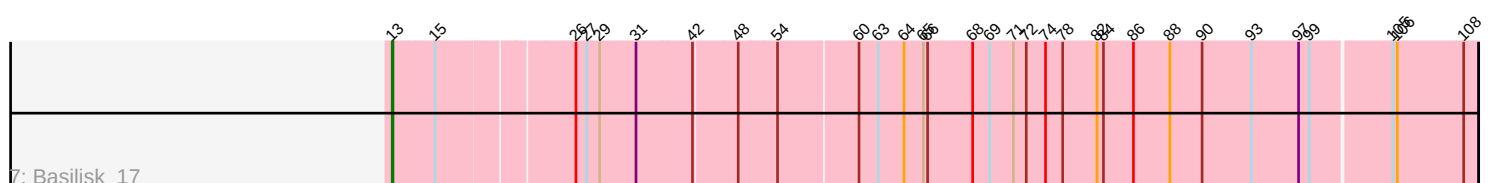
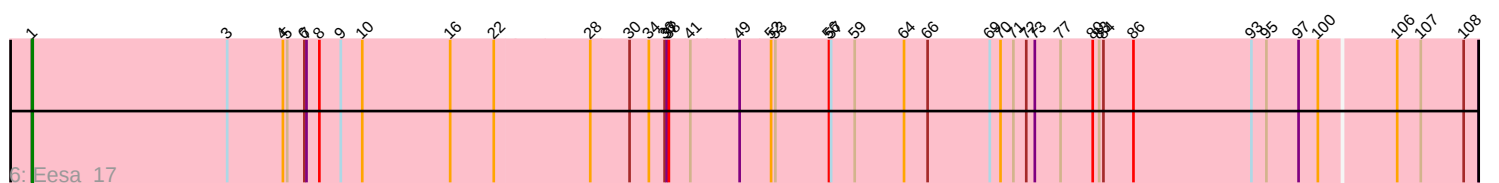
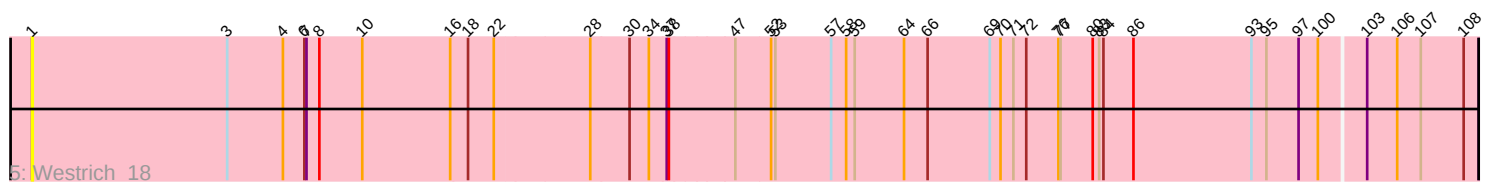
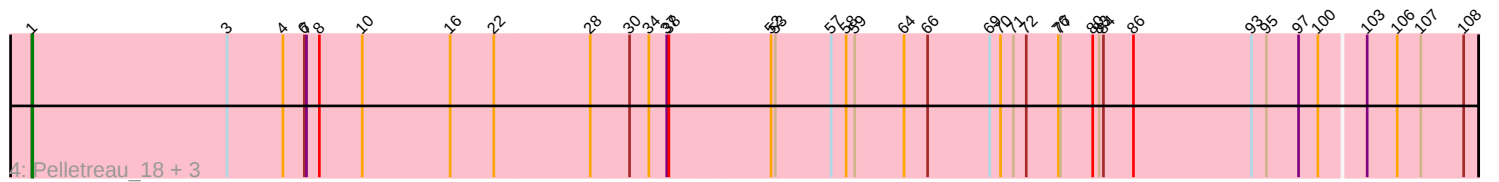
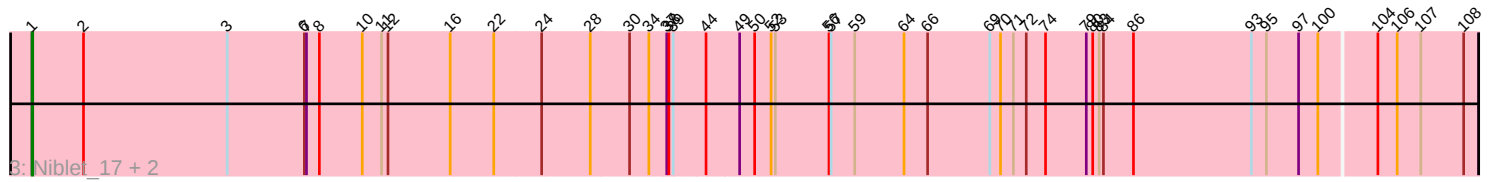
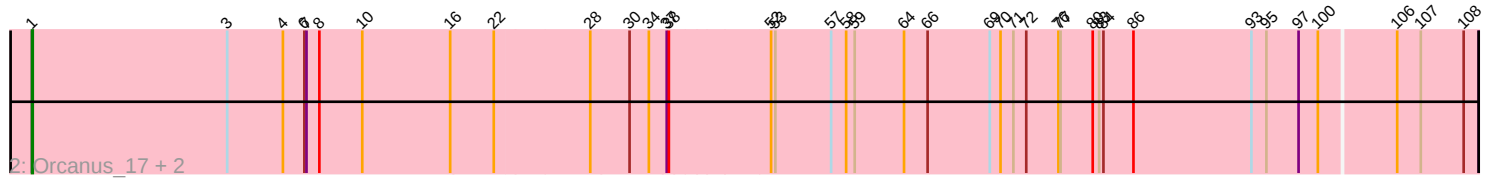
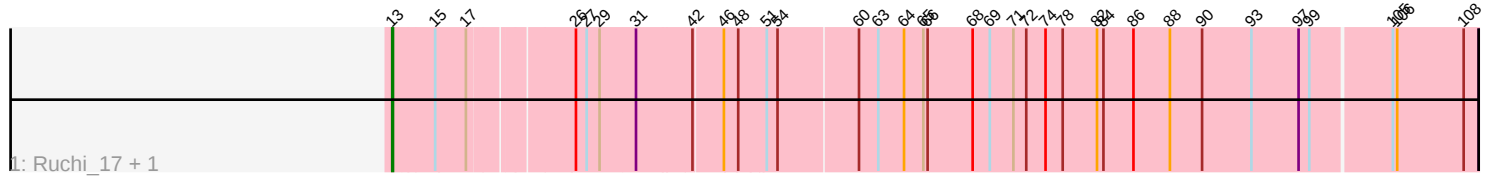


# Pham 331322



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 331322 Report

This analysis was run 09/05/26 on database version 662.

Pham number 331322 has 17 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Ruchi\_17, Brynnie\_17
- Track 2 : Orcanus\_17, Toad24\_18, KendraB23\_18
- Track 3 : Niblet\_17, Chicken\_17, Zixiang\_17
- Track 4 : Pelletreau\_18, Amanises\_18, Shen\_18, Gravel\_18
- Track 5 : Westrich\_18
- Track 6 : Eesa\_17
- Track 7 : Basilisk\_17
- Track 8 : Antrice\_17
- Track 9 : Cygnet\_17

### ***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 7 of the 12 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amanises\_18, Chicken\_17, Eesa\_17, Gravel\_18, KendraB23\_18, Niblet\_17, Orcanus\_17, Pelletreau\_18, Shen\_18, Toad24\_18, Westrich\_18, Zixiang\_17,

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

- 

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

- Antrice\_17, Basilisk\_17, Brynnie\_17, Cygnet\_17, Ruchi\_17,

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

Start 1:

- Found in 12 of 17 ( 70.6% ) of genes in pham
- Manual Annotations of this start: 7 of 12
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amanises\_18 (AS1), Chicken\_17 (AS1), Eesa\_17 (AS1), Gravel\_18 (AS1), KendraB23\_18 (AS1), Niblet\_17 (AS1), Orcanus\_17 (AS1), Pelletreau\_18 (AS1), Shen\_18 (AS1), Toad24\_18 (AS1),

Westrich\_18 (AS1), Zixiang\_17 (AS1),

Start 13:

- Found in 5 of 17 ( 29.4% ) of genes in pham
- Manual Annotations of this start: 5 of 12
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antrice\_17 (AS2), Basilisk\_17 (AS1), Brynnie\_17 (AS1), Cygnet\_17 (AS2), Ruchi\_17 (AS1),

### Summary by clusters:

There are 2 clusters represented in this pham: AS2, AS1,

Info for manual annotations of cluster AS1:

- Start number 1 was manually annotated 7 times for cluster AS1.
- Start number 13 was manually annotated 3 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 13 was manually annotated 2 times for cluster AS2.

### Gene Information:

Gene: Amanises\_18 Start: 12534, Stop: 14528, Start Num: 1

Candidate Starts for Amanises\_18:

(Start: 1 @12534 has 7 MA's), (3, 12807), (4, 12885), (6, 12915), (7, 12918), (8, 12936), (10, 12996), (16, 13119), (22, 13179), (28, 13308), (30, 13362), (34, 13389), (37, 13413), (38, 13416), (52, 13551), (53, 13557), (57, 13635), (58, 13656), (59, 13668), (64, 13737), (66, 13770), (69, 13854), (70, 13869), (71, 13887), (72, 13905), (76, 13950), (77, 13953), (80, 13998), (83, 14007), (84, 14013), (86, 14055), (93, 14220), (95, 14241), (97, 14286), (100, 14313), (103, 14373), (106, 14415), (107, 14448), (108, 14508),

Gene: Antrice\_17 Start: 12424, Stop: 13923, Start Num: 13

Candidate Starts for Antrice\_17:

(Start: 13 @12424 has 5 MA's), (14, 12427), (16, 12502), (19, 12547), (20, 12550), (21, 12553), (23, 12583), (25, 12634), (32, 12757), (33, 12769), (35, 12781), (40, 12811), (43, 12841), (45, 12865), (55, 12970), (61, 13069), (62, 13081), (64, 13120), (67, 13198), (69, 13240), (70, 13255), (71, 13273), (75, 13327), (76, 13336), (81, 13387), (83, 13393), (84, 13399), (85, 13432), (87, 13477), (92, 13603), (97, 13672), (98, 13681), (101, 13711), (103, 13768), (105, 13804), (106, 13810),

Gene: Basilisk\_17 Start: 13206, Stop: 14657, Start Num: 13

Candidate Starts for Basilisk\_17:

(Start: 13 @13206 has 5 MA's), (15, 13260), (26, 13431), (27, 13446), (29, 13464), (31, 13512), (42, 13587), (48, 13644), (54, 13695), (60, 13803), (63, 13830), (64, 13866), (65, 13893), (66, 13899), (68, 13959), (69, 13983), (71, 14016), (72, 14034), (74, 14061), (78, 14085), (82, 14133), (84, 14142), (86, 14184), (88, 14235), (90, 14280), (93, 14349), (97, 14415), (99, 14430), (105, 14538), (106, 14544), (108, 14637),

Gene: Brynnie\_17 Start: 13018, Stop: 14469, Start Num: 13

Candidate Starts for Brynnie\_17:

(Start: 13 @13018 has 5 MA's), (15, 13072), (17, 13114), (26, 13243), (27, 13258), (29, 13276), (31, 13324), (42, 13399), (46, 13438), (48, 13456), (51, 13492), (54, 13507), (60, 13615), (63, 13642), (64,

13678), (65, 13705), (66, 13711), (68, 13771), (69, 13795), (71, 13828), (72, 13846), (74, 13873), (78, 13897), (82, 13945), (84, 13954), (86, 13996), (88, 14047), (90, 14092), (93, 14161), (97, 14227), (99, 14242), (105, 14350), (106, 14356), (108, 14449),

Gene: Chicken\_17 Start: 12413, Stop: 14407, Start Num: 1

Candidate Starts for Chicken\_17:

(Start: 1 @12413 has 7 MA's), (2, 12485), (3, 12686), (6, 12794), (7, 12797), (8, 12815), (10, 12875), (11, 12902), (12, 12911), (16, 12998), (22, 13058), (24, 13121), (28, 13187), (30, 13241), (34, 13268), (37, 13292), (38, 13295), (39, 13301), (44, 13343), (49, 13388), (50, 13409), (52, 13430), (53, 13436), (56, 13511), (57, 13514), (59, 13547), (64, 13616), (66, 13649), (69, 13733), (70, 13748), (71, 13766), (72, 13784), (74, 13811), (79, 13868), (80, 13877), (83, 13886), (84, 13892), (86, 13934), (93, 14099), (95, 14120), (97, 14165), (100, 14192), (104, 14267), (106, 14294), (107, 14327), (108, 14387),

Gene: Cygnet\_17 Start: 12533, Stop: 14032, Start Num: 13

Candidate Starts for Cygnet\_17:

(Start: 13 @12533 has 5 MA's), (14, 12536), (16, 12611), (19, 12656), (20, 12659), (21, 12662), (23, 12692), (25, 12743), (32, 12866), (33, 12878), (35, 12890), (40, 12920), (43, 12950), (45, 12974), (55, 13079), (61, 13178), (62, 13190), (64, 13229), (67, 13307), (69, 13349), (70, 13364), (71, 13382), (75, 13436), (76, 13445), (81, 13496), (83, 13502), (84, 13508), (85, 13541), (89, 13616), (91, 13658), (92, 13712), (94, 13730), (96, 13739), (99, 13796), (102, 13838), (103, 13877), (105, 13913), (106, 13919),

Gene: Eesa\_17 Start: 12627, Stop: 14621, Start Num: 1

Candidate Starts for Eesa\_17:

(Start: 1 @12627 has 7 MA's), (3, 12900), (4, 12978), (5, 12984), (6, 13008), (7, 13011), (8, 13029), (9, 13059), (10, 13089), (16, 13212), (22, 13272), (28, 13401), (30, 13455), (34, 13482), (36, 13503), (37, 13506), (38, 13509), (41, 13536), (49, 13602), (52, 13644), (53, 13650), (56, 13725), (57, 13728), (59, 13761), (64, 13830), (66, 13863), (69, 13947), (70, 13962), (71, 13980), (72, 13998), (73, 14010), (77, 14046), (80, 14091), (83, 14100), (84, 14106), (86, 14148), (93, 14313), (95, 14334), (97, 14379), (100, 14406), (106, 14508), (107, 14541), (108, 14601),

Gene: Gravel\_18 Start: 12533, Stop: 14527, Start Num: 1

Candidate Starts for Gravel\_18:

(Start: 1 @12533 has 7 MA's), (3, 12806), (4, 12884), (6, 12914), (7, 12917), (8, 12935), (10, 12995), (16, 13118), (22, 13178), (28, 13307), (30, 13361), (34, 13388), (37, 13412), (38, 13415), (52, 13550), (53, 13556), (57, 13634), (58, 13655), (59, 13667), (64, 13736), (66, 13769), (69, 13853), (70, 13868), (71, 13886), (72, 13904), (76, 13949), (77, 13952), (80, 13997), (83, 14006), (84, 14012), (86, 14054), (93, 14219), (95, 14240), (97, 14285), (100, 14312), (103, 14372), (106, 14414), (107, 14447), (108, 14507),

Gene: KendraB23\_18 Start: 12534, Stop: 14528, Start Num: 1

Candidate Starts for KendraB23\_18:

(Start: 1 @12534 has 7 MA's), (3, 12807), (4, 12885), (6, 12915), (7, 12918), (8, 12936), (10, 12996), (16, 13119), (22, 13179), (28, 13308), (30, 13362), (34, 13389), (37, 13413), (38, 13416), (52, 13551), (53, 13557), (57, 13635), (58, 13656), (59, 13668), (64, 13737), (66, 13770), (69, 13854), (70, 13869), (71, 13887), (72, 13905), (76, 13950), (77, 13953), (80, 13998), (83, 14007), (84, 14013), (86, 14055), (93, 14220), (95, 14241), (97, 14286), (100, 14313), (106, 14415), (107, 14448), (108, 14508),

Gene: Niblet\_17 Start: 12413, Stop: 14407, Start Num: 1

Candidate Starts for Niblet\_17:

(Start: 1 @12413 has 7 MA's), (2, 12485), (3, 12686), (6, 12794), (7, 12797), (8, 12815), (10, 12875), (11, 12902), (12, 12911), (16, 12998), (22, 13058), (24, 13121), (28, 13187), (30, 13241), (34, 13268), (37, 13292), (38, 13295), (39, 13301), (44, 13343), (49, 13388), (50, 13409), (52, 13430), (53, 13436), (56, 13511), (57, 13514), (59, 13547), (64, 13616), (66, 13649), (69, 13733), (70, 13748), (71, 13766),

(72, 13784), (74, 13811), (79, 13868), (80, 13877), (83, 13886), (84, 13892), (86, 13934), (93, 14099), (95, 14120), (97, 14165), (100, 14192), (104, 14267), (106, 14294), (107, 14327), (108, 14387),

Gene: Orcanus\_17 Start: 12327, Stop: 14321, Start Num: 1

Candidate Starts for Orcanus\_17:

(Start: 1 @12327 has 7 MA's), (3, 12600), (4, 12678), (6, 12708), (7, 12711), (8, 12729), (10, 12789), (16, 12912), (22, 12972), (28, 13101), (30, 13155), (34, 13182), (37, 13206), (38, 13209), (52, 13344), (53, 13350), (57, 13428), (58, 13449), (59, 13461), (64, 13530), (66, 13563), (69, 13647), (70, 13662), (71, 13680), (72, 13698), (76, 13743), (77, 13746), (80, 13791), (83, 13800), (84, 13806), (86, 13848), (93, 14013), (95, 14034), (97, 14079), (100, 14106), (106, 14208), (107, 14241), (108, 14301),

Gene: Pelletreau\_18 Start: 12533, Stop: 14527, Start Num: 1

Candidate Starts for Pelletreau\_18:

(Start: 1 @12533 has 7 MA's), (3, 12806), (4, 12884), (6, 12914), (7, 12917), (8, 12935), (10, 12995), (16, 13118), (22, 13178), (28, 13307), (30, 13361), (34, 13388), (37, 13412), (38, 13415), (52, 13550), (53, 13556), (57, 13634), (58, 13655), (59, 13667), (64, 13736), (66, 13769), (69, 13853), (70, 13868), (71, 13886), (72, 13904), (76, 13949), (77, 13952), (80, 13997), (83, 14006), (84, 14012), (86, 14054), (93, 14219), (95, 14240), (97, 14285), (100, 14312), (103, 14372), (106, 14414), (107, 14447), (108, 14507),

Gene: Ruchi\_17 Start: 13152, Stop: 14603, Start Num: 13

Candidate Starts for Ruchi\_17:

(Start: 13 @13152 has 5 MA's), (15, 13206), (17, 13248), (26, 13377), (27, 13392), (29, 13410), (31, 13458), (42, 13533), (46, 13572), (48, 13590), (51, 13626), (54, 13641), (60, 13749), (63, 13776), (64, 13812), (65, 13839), (66, 13845), (68, 13905), (69, 13929), (71, 13962), (72, 13980), (74, 14007), (78, 14031), (82, 14079), (84, 14088), (86, 14130), (88, 14181), (90, 14226), (93, 14295), (97, 14361), (99, 14376), (105, 14484), (106, 14490), (108, 14583),

Gene: Shen\_18 Start: 12534, Stop: 14528, Start Num: 1

Candidate Starts for Shen\_18:

(Start: 1 @12534 has 7 MA's), (3, 12807), (4, 12885), (6, 12915), (7, 12918), (8, 12936), (10, 12996), (16, 13119), (22, 13179), (28, 13308), (30, 13362), (34, 13389), (37, 13413), (38, 13416), (52, 13551), (53, 13557), (57, 13635), (58, 13656), (59, 13668), (64, 13737), (66, 13770), (69, 13854), (70, 13869), (71, 13887), (72, 13905), (76, 13950), (77, 13953), (80, 13998), (83, 14007), (84, 14013), (86, 14055), (93, 14220), (95, 14241), (97, 14286), (100, 14313), (103, 14373), (106, 14415), (107, 14448), (108, 14508),

Gene: Toad24\_18 Start: 12534, Stop: 14528, Start Num: 1

Candidate Starts for Toad24\_18:

(Start: 1 @12534 has 7 MA's), (3, 12807), (4, 12885), (6, 12915), (7, 12918), (8, 12936), (10, 12996), (16, 13119), (22, 13179), (28, 13308), (30, 13362), (34, 13389), (37, 13413), (38, 13416), (52, 13551), (53, 13557), (57, 13635), (58, 13656), (59, 13668), (64, 13737), (66, 13770), (69, 13854), (70, 13869), (71, 13887), (72, 13905), (76, 13950), (77, 13953), (80, 13998), (83, 14007), (84, 14013), (86, 14055), (93, 14220), (95, 14241), (97, 14286), (100, 14313), (106, 14415), (107, 14448), (108, 14508),

Gene: Westrich\_18 Start: 12522, Stop: 14516, Start Num: 1

Candidate Starts for Westrich\_18:

(Start: 1 @12522 has 7 MA's), (3, 12795), (4, 12873), (6, 12903), (7, 12906), (8, 12924), (10, 12984), (16, 13107), (18, 13131), (22, 13167), (28, 13296), (30, 13350), (34, 13377), (37, 13401), (38, 13404), (47, 13491), (52, 13539), (53, 13545), (57, 13623), (58, 13644), (59, 13656), (64, 13725), (66, 13758), (69, 13842), (70, 13857), (71, 13875), (72, 13893), (76, 13938), (77, 13941), (80, 13986), (83, 13995), (84, 14001), (86, 14043), (93, 14208), (95, 14229), (97, 14274), (100, 14301), (103, 14361), (106, 14403), (107, 14436), (108, 14496),

Gene: Zixiang\_17 Start: 12413, Stop: 14407, Start Num: 1

Candidate Starts for Zixiang\_17:

(Start: 1 @12413 has 7 MA's), (2, 12485), (3, 12686), (6, 12794), (7, 12797), (8, 12815), (10, 12875), (11, 12902), (12, 12911), (16, 12998), (22, 13058), (24, 13121), (28, 13187), (30, 13241), (34, 13268), (37, 13292), (38, 13295), (39, 13301), (44, 13343), (49, 13388), (50, 13409), (52, 13430), (53, 13436), (56, 13511), (57, 13514), (59, 13547), (64, 13616), (66, 13649), (69, 13733), (70, 13748), (71, 13766), (72, 13784), (74, 13811), (79, 13868), (80, 13877), (83, 13886), (84, 13892), (86, 13934), (93, 14099), (95, 14120), (97, 14165), (100, 14192), (104, 14267), (106, 14294), (107, 14327), (108, 14387),