

1. D.melanogaster_Amyrel	MSKPR	-A	TTTTC	AG	SS	IAQHN	PHWGN	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG				
2. D.virilis_Amyrel	M	-	KTTC	CM	A	SA	IAQHN	PHWGN	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG			
3. Belgica_Amy2	M	-	KTTC	CM	A	SA	IAQHN	PHWGN	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG			
4. Belgica_Amy2	M	-	KTTC	CM	A	SA	IAQHN	PHWGN	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG			
5. Musca domestica_Amyrel	MSKPR	A	WA	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG
6. Ceratitis capitata_Amyrel	MAANR	RG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG	
7. Hermetia illucens	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
8. D.melanogaster	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
9. D.virilis	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
10. C.capitata_AmyG	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
11. Ceratitis capitata 4Nlike	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
12. Ceratitis capitata Amy1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
13. Megastela scalaris	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
14. Musca domestica XP_005185255	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
15. Musca domestica XP_005185446	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
16. Musca domestica XP_005185447	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
17. Bactrocera dorsalis A	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
18. Bactrocera dorsalis 4N	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
19. Aedes aegypti Amy2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
20. Aedes aegypti Amy2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
21. Bibio mard Amy1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
22. Bibio mard Amy1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
23. Aedes aegypti Amy1*	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
24. Anopheles gambiae Amy2*	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
25. Lutzomyia longipalpis	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
26. Ceratopogon appendiculata	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
27. Simulium nigrimanum	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
28. Phlebotomus arabia	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
29. Culex tarsalis	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
30. Anopheles gambiae AmyA	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
31. Anopheles gambiae AmyB	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
32. Anopheles gambiae Amy1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
33. Anopheles gambiae	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
34. Anopheles gambiae	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
35. Apis mellifera	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
36. Apis florea	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
37. Apis cerana	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
38. Dufourea novaeangliae	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
39. Osmia cornuta partiel	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
40. Polistes dominula	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
41. Osmia abietinus 1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
42. Osmia abietinus 2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
43. Bombus terrestris	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
44. Microplitis demolitor	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
45. Stomoxys calcitrans XP_013119361	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
46. Ceratopogon solmsi marchali	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
47. Cotesia congregata	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
48. Microplitis demolitor 2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
49. Diachasma alloeum	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
50. Diachasma alloeum Amy2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
51. Nasonia vitripennis	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
52. Cotesia congregata Amy2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
53. Trichogramma pretiosum Amy1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
54. Trichogramma pretiosum Amy2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
55. Copidosoma floridanum	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
56. Aethina tumida	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
57. Nasonia vitripennis Amy1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
58. Linepithema humile 1	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
59. Linepithema humile 2	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
60. Cerapachys biroi 4N	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
61. Dinoponera quadricipes	MG	-	AI	CM	IA	SW	GN	IAQHN	PHWWSG	RNT	THFEWKV	SD	AQCE	SS	PGRGA	Q	SP	NEN	IS	AG	RPWERN	Q	PSMK	TT	RS	GNE	EE	RG		
62. Atta cephalotes	MG	-	AI	CM																										

[illegible]



- [illegible]



- |     |     |     |       |     |     |     |     |     |     |     |     |     |
|-----|-----|-----|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 410 | 420 | 430 | 440   | 450 | 460 | 470 | 480 | 490 | 500 | 510 | 520 | 530 |
| 1   | 2   | 3   | 4     | 5   | 6   | 7   | 8   | 9   | 10  | 11  | 12  | 13  |
| 14  | 15  | 16  | 17    | 18  | 19  | 20  | 21  | 22  | 23  | 24  | 25  | 26  |
| 27  | 28  | 29  | 30    | 31  | 32  | 33  | 34  | 35  | 36  | 37  | 38  | 39  |
| 40  | 41  | 42  | 43    | 44  | 45  | 46  | 47  | 48  | 49  | 50  | 51  | 52  |
| 53  | 54  | 55  | 56    | 57  | 58  | 59  | 60  | 61  | 62  | 63  | 64  | 65  |
| 66  | 67  | 68  | 69    | 70  | 71  | 72  | 73  | 74  | 75  | 76  | 77  | 78  |
| 79  | 80  | 81  | 82    | 83  | 84  | 85  | 86  | 87  | 88  | 89  | 90  | 91  |
| 92  | 93  | 94  | 95    | 96  | 97  | 98  | 99  | 100 | 101 | 102 | 103 | 104 |
| 105 | 106 | 107 | 108   | 109 | 110 | 111 | 112 | 113 | 114 | 115 | 116 | 117 |
| 118 | 119 | 120 | 121   | 122 | 123 | 124 | 125 | 126 | 127 | 128 | 129 | 130 |
| 131 | 132 | 133 | 134   | 135 | 136 | 137 | 138 | 139 | 140 | 141 | 142 | 143 |
| 144 | 145 | 146 | 147   | 148 | 149 | 150 | 151 | 152 | 153 | 154 | 155 | 156 |
| 157 | 158 | 159 | 160   | 161 | 162 | 163 | 164 | 165 | 166 | 167 | 168 | 169 |
| 170 | 171 | 172 | 173   | 174 | 175 | 176 | 177 | 178 | 179 | 180 | 181 | 182 |
| 183 | 184 | 185 | 186   | 187 | 188 | 189 | 190 | 191 | 192 | 193 | 194 | 195 |
| 196 | 197 | 198 | 199   | 200 | 201 | 202 | 203 | 204 | 205 | 206 | 207 | 208 |
| 209 | 210 | 211 | 212   | 213 | 214 | 215 | 216 | 217 | 218 | 219 | 220 | 221 |
| 222 | 223 | 224 | 225   | 226 | 227 | 228 | 229 | 230 | 231 | 232 | 233 | 234 |
| 235 | 236 | 237 | 238   | 239 | 240 | 241 | 242 | 243 | 244 | 245 | 246 | 247 |
| 248 | 249 | 250 | 251   | 252 | 253 | 254 | 255 | 256 | 257 | 258 | 259 | 260 |
| 261 | 262 | 263 | 264   | 265 | 266 | 267 | 268 | 269 | 270 | 271 | 272 | 273 |
| 274 | 275 | 276 | 277   | 278 | 279 | 280 | 281 | 282 | 283 | 284 | 285 | 286 |
| 287 | 288 | 289 | 290   | 291 | 292 | 293 | 294 | 295 | 296 | 297 | 298 | 299 |
| 300 | 301 | 302 | 303   | 304 | 305 | 306 | 307 | 308 | 309 | 310 | 311 | 312 |
| 313 | 314 | 315 | 316   | 317 | 318 | 319 | 320 | 321 | 322 | 323 | 324 | 325 |
| 326 | 327 | 328 | 329   | 330 | 331 | 332 | 333 | 334 | 335 | 336 | 337 | 338 |
| 339 | 340 | 341 | 342   | 343 | 344 | 345 | 346 | 347 | 348 | 349 | 350 | 351 |
| 352 | 353 | 354 | 355   | 356 | 357 | 358 | 359 | 360 | 361 | 362 | 363 | 364 |
| 365 | 366 | 367 | 368   | 369 | 370 | 371 | 372 | 373 | 374 | 375 | 376 | 377 |
| 378 | 379 | 380 | 381   | 382 | 383 | 384 | 385 | 386 | 387 | 388 | 389 | 390 |
| 391 | 392 | 393 | 394   | 395 | 396 | 397 | 398 | 399 | 400 | 401 | 402 | 403 |
| 404 | 405 | 406 | 407   | 408 | 409 | 410 | 411 | 412 | 413 | 414 | 415 | 416 |
| 417 | 418 | 419 | 420   | 421 | 422 | 423 | 424 | 425 | 426 | 427 | 428 | 429 |
| 430 | 431 | 432 | 433   | 434 | 435 | 436 | 437 | 438 | 439 | 440 | 441 | 442 |
| 443 | 444 | 445 | 446   | 447 | 448 | 449 | 450 | 451 | 452 | 453 | 454 | 455 |
| 456 | 457 | 458 | 459   | 460 | 461 | 462 | 463 | 464 | 465 | 466 | 467 | 468 |
| 469 | 470 | 471 | 472   | 473 | 474 | 475 | 476 | 477 | 478 | 479 | 480 | 481 |
| 482 | 483 | 484 | 485</ |     |     |     |     |     |     |     |     |     |



1. D.melanogaster_Amyrel	NTCT	PAGT	YCV	ISG	-S	-L	GG--	SCT	GK	S	TTT	NG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
2. D.virilis_Amyrel	QTCI	PAG	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
3. Belgica Amy1	QTCI	PAGT	YCV	ISG	-A	-L	GT--	SCT	GG	T	TTT	AA	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
4. Belgica Amy2	QTCI	PAGT	YCV	ISG	-A	-L	GT--	SCT	GG	T	TTT	AA	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
5. Musca domestica Amyrel	QTCI	PAGT	YCV	ISG	-A	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
6. Ceratitis capitata_Amyrel	YTCI	SAG	YCV	ISG	-A	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
7. Hermetia illucens	YTCI	SAG	YCV	ISG	-S	-K	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
8. D.melanogaster	QTCI	PAGT	YCV	ISG	-S	-K	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
9. D.virilis	QTCI	SAGT	YCV	ISG	-T	-K	SGS--	GCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
10. C.capitata_AmyG	QTCI	PAGT	YCV	ISG	-N	-L	SGS--	GCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
11. Ceratitis capitata 4Nlike	QTCI	PAGT	YCV	ISG	-N	-L	SGS--	GCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
12. Ceratitis capitata Amy1	QTCI	PAGT	YCV	ISG	-N	-L	SGS--	GCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
13. Megaselia scalaris	QTCI	PAGT	YCV	ISG	-G	-K	SGS--	NCS	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
14. Musca domestica XP_005185255	QTCI	PKG	YCV	ISG	-N	-L	SGN--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
15. Musca domestica XP_005185446	QTCI	PAGT	YCV	ISG	-M	-K	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
16. Musca domestica XP_005185447	QTCI	PAGT	YCV	ISG	-S	-K	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
17. Bactrocera dorsalis A	QTCI	PAGT	YCV	ISG	-N	-L	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
18. Bactrocera dorsalis 4N	QTCI	PAGT	YCV	ISG	-A	-L	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
19. Aedes aegypti Amy2	QTCI	SAGT	YCV	ISG	-N	-L	GG--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
20. Aedes atropalpus	QTCI	PAGT	YCV	ISG	-S	-K	GG--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
21. Bibio marid Amy1	QTCI	PPGT	YCV	ISG	-G	-N	GG--	CS	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
22. Bibio marid Amy2	QTCI	PAG	YCV	ISG	-G	-N	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
23. Aedes aegypti Amy1*	HTCI	PPGG	YCV	ISG	-N	-L	SQS--	TCT	GT	V	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
24. Anopheles gambiae Amy2*	KACI	PPG	YCV	ISG	-N	-L	GT--	MCT	GT	R	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
25. Lutzomyia longipalpis	PTCI	PPG	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
26. Microhelia appendiculata	QTCI	PAGT	YCV	ISG	-A	-L	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
27. Simulium nigrimanum	QTCI	PAGT	YCV	ISG	-N	-L	AG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
28. Phlebotomus arabi	STNI	APG	YCV	ISG	-N	-L	SGN--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
29. Culex tarsalis	QTCI	PAGT	YCV	ISG	-N	-L	SGS--	TCT	GT	T	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
30. Anopheles gambiae AmyA	QTCI	PAGT	YCV	ISG	-S	-K	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
31. Anopheles gambiae AmyB	QTCI	PAGT	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
32. Anopheles gambiae Amy1	QTCI	PAGT	YCV	ISG	-A	-L	GT--	TCT	GT	T	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
33. Anopheles ferox	QTCI	PAGT	YCV	ISG	-N	-L	GG--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
34. Anopheles aquasalis	QTCI	PAGT	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
35. Apis mellifera	KTCI	PPGG	YCV	ISG	-N	-L	GG--	CS	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
36. Apis florea	KTCI	PAGT	YCV	ISG	-N	-L	GG--	CS	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
37. Apis cerana	KTCI	PPGG	YCV	ISG	-N	-L	GG--	CS	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
38. Dufourea novaeangliae	RSCMP	PKG	YCV	ISG	-N	-L	NG--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
39. Osmia cornuta partiel	NTCI	PAGT	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
40. Polistes dominula	KTCI	PPGG	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
41. Orussus abietinus 1	QTCI	PAGT	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
42. Orussus abietinus 2	WTNI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
43. Bombus terrestris	KTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
44. Microplitis demolitor1	QTCI	PAGT	YCV	ISG	-N	-L	SGN--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
45. Stomoxys calcitrans XP_013119361	QTCI	PAGT	YCV	ISG	-S	-K	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
46. Ceratosolen solmsi marchali	QTCI	PAGT	YCV	ISG	-N	-L	NN--	TCT	GT	T	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
47. Cotesia congregata	HTCI	PPG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
48. Microplitis croceipes Amy2	QTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
49. Diachasma alloeum	HTCI	PAGT	YCV	ISG	-S	-K	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
50. Diachasma alloeum Amy2	HTCI	PAGT	YCV	ISG	-S	-K	SGS--	SCT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
51. Nasonia vitripennis	QTCI	PAGT	YCV	ISG	-N	-L	NG--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
52. cotesia.congregata amy2	KTCI	PPGG	YCV	ISG	-N	-L	GG--	CS	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
53. Trichogramma pretiosum 1	QTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
54. Trichogramma pretiosum 2	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
55. Copidosoma floridanum	QTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
56. Aethina tumida	HTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
57. Nasonia vitripennis Amy1	HTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
58. Linepithema humile 1	QTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
59. Linepithema humile 2	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
60. Cerapachys biroi 4N	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
61. Dinoponera quadricipes	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
62. Atta cephalotes	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
63. Oricryptus invicta	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
64. Wasmannia auropunctata	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
65. Vollenhovia emeryi	HTCI	PPGG	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
66. Vollenhovia emeryi	QTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
67. Pogonomyrmex barbatus GHGA	QTCI	PAGT	YCV	ISG	-N	-L	NN--	ACT	GK	S	TTT	GG	-NG	GY	TH	G	SD	D	G	W	A	H	V	D	A	--	X	N
68. Acromyrmex echinator	QTCI	PAGT	YCV	ISG	-N	-L																						