Annotation of 200 Insect Genomes with BRAKER for Consistent Comparisons across Species

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Supplementary Table: Annotation Summary of 200 Insect Genomes

Species	**Accession ID**	**BRAKER 2 or 3**	**Annotation Status (GenBank)**	**Literature Reference**
Acromyrmex heyeri	GCA_017607565.1	2	Annotated	[44]
Acronicta aceris	GCA_910591435.1	2	Not Annotated	[45]
Acyrthosiphon pisum	GCA_005508785.2	3	Annotated	[46]
Aethina tumida	GCA_024364675.1	3	Annotated	[47]
Agonopterix arenella	GCA_927399405.1	2	Not Annotated	[48]
Agrotis ipsilon	GCA_028554685.1	3	Not Annotated	[49]
Amphipyra tragopoginis	GCA_905220435.1	3	Not Annotated	[45]
Anastrepha ludens	GCA_028408465.1	3	Not Annotated	[47]
Andrena minutula	GCA_929113495.1	3	Not Annotated	[50]
Anopheles albimanus	GCA_013758885.1	3	Annotated	[51]
Anopheles arabiensis	GCA_016920715.1	3	Annotated	[52]
Anopheles coluzzii	GCA_943734685.1	3	Annotated	[45]
Anopheles farauti	GCA_000473445.2	3	Not Annotated	Direct Submission
Anopheles funestus	GCA_943734845.1	3	Annotated	[45]
Anopheles gambiae	GCA_000005575.1	3	Not Annotated	[53]
Anopheles merus	GCA_017562075.2	3	Annotated	Direct Submission
Anopheles sinensis	GCA_000441895.2	3	Annotated	[54]

Anopheles stephensi	GCA_013141755.1	3	Annotated	Direct Submission
Anopheles ziemanni	GCA_943734765.2	3	Not Annotated	[45]
Anoplophora glabripennis	GCA_000390285.2	3	Annotated	Direct Submission
Antheraea mylitta	GCA_014332785.1	2	Not Annotated	Direct Submission
Aphis glycines	GCA_009761285.1	3	Annotated	[55]
Aphis gossypii	GCA_020184175.2	2	Annotated	Direct Submission
Apis mellifera	GCA_003254395.2	3	Annotated	[56]
Apolygus lucorum	GCA_009739505.2	2	Annotated	[57]
Aporophyla lueneburgensis	GCA_932294355.1	3	Not Annotated	[45]
Apotomis betuletana	GCA_932273695.1	2	Not Annotated	[45]
Arctia plantaginis	GCA_902825455.1	3	Annotated	Direct Submission
Athrips mouffetella	GCA_947532105.1	2	Not Annotated	[45]
Autographa gamma	GCA_905146925.1	3	Not Annotated	[45]
Bactrocera dorsalis	GCA_023373825.1	3	Annotated	Direct Submission
Bactrocera minax	GCA_021498325.1	3	Not Annotated	Direct Submission
Bactrocera neohumeralis	GCA_024586455.2	3	Annotated	[58]
Bactrocera oleae	GCA_001188975.4	3	Annotated	Direct Submission
Bactrocera tryoni	GCA_016617805.2	3	Annotated	Direct Submission
Bemisia tabaci	GCA_001854935.1	3	Annotated	Direct Submission
Bombus impatiens	GCA_000188095.4	3	Annotated	[59]
Bombus vosnesenskii	GCA_011952255.1	3	Annotated	Direct Submission
Bombyx mandarina	GCA_003987935.1	3	Annotated	[60]
Bombyx mori	GCA_014905235.2	3	Annotated	Direct Submission
Bradysia coprophila	GCA_014529535.2	3	Annotated	Direct Submission
Calliphora vicina	GCA_958450345.1	3	Not Annotated	[45]
Camponotus floridanus	GCA_003227725.1	3	Annotated	[61]
Cantharis rufa	GCA_947369205.1	2	Not Annotated	[45]

Cardiocondyla obscurior	GCA_019399895.1	3	Not Annotated	Direct Submission
Ceratitis capitata	GCA_000347755.4	3	Annotated	Direct Submission
Cheilosia urbana	GCA_946477585.1	2	Not Annotated	[45]
Chilo suppressalis	GCA_902850365.2	3	Annotated	[62]
Chironomus riparius	GCA_917627325.4	3	Annotated	[62]
Chrysoperla carnea	GCA_905475395.1	3	Annotated	[45]
Chymomyza costata	GCA_018150985.1	3	Not Annotated	[63]
Cimex lectularius	GCA_000648675.3	3	Annotated	[64]
Cloeon dipterum	GCA_949628265.1	3	Annotated	Direct Submission
Cochliomyia hominivorax	GCA_004302925.2	3	Not Annotated	Direct Submission
Coelopa frigida	GCA_017309665.1	3	Not Annotated	Direct Submission
Colias croceus	GCA_905220415.1	3	Annotated	[45]
Cosmia trapezina	GCA_905163495.3	2	Not Annotated	[45]
Cryptotermes secundus	GCA_002891405.2	3	Annotated	[65]
Culex quinquefasciatus	GCA_015732765.1	3	Annotated	Direct Submission
Dalotia coriaria	GCA_025399875.2	3	Not Annotated	[66]
Danaus plexippus	GCA_009731565.1	3	Not Annotated	[67]
Dendroctonus ponderosae	GCA_020466585.2	3	Annotated	[68]
Diuraphis noxia	GCA_001186385.1	3	Annotated	[69]
Drosophila albomicans	GCA_009650485.2	2	Annotated	[70]
Drosophila ananassae	GCA_017639315.2	3	Annotated	[71]
Drosophila arizonae	GCA_001654025.1	3	Annotated	[72]
Drosophila birchii	GCA_008042755.1	3	Annotated	Direct Submission
Drosophila elegans	GCA_018152505.1	3	Annotated	[63]
Drosophila erecta	GCA_003286155.2	3	Annotated	Direct Submission
Drosophila grimshawi	GCA_018153295.1	3	Annotated	[63]
Drosophila gunungcola	GCA_025200985.1	3	Annotated	[73]
Drosophila hydei	GCA_003285905.2	3	Annotated	Direct Submission
Drosophila innubila	GCA_004354385.2	3	Annotated	[74]
Drosophila mauritiana	GCA_004382145.1	3	Annotated	Direct Submission

Drosophila melanogaster	GCA_000001215.4	3	Annotated	[75]
Drosophila miranda	GCA_003369915.2	3	Annotated	[76]
Drosophila navojoa	GCA_001654015.2	3	Annotated	[77]
Drosophila novamexicana	GCA_003285875.3	2	Annotated	Direct Submission
Drosophila obscura	GCA_018151105.1	3	Annotated	[63]
Drosophila persimilis	GCA_003286085.2	3	Annotated	Direct Submission
Drosophila prosaltans	GCA_018151275.1	2	Not Annotated	[63]
Drosophila pseudoananassae	GCA_018153035.1	3	Annotated	[78]
Drosophila santomea	GCA_016746245.2	3	Annotated	Direct Submission
Drosophila sechellia	GCA_004382195.2	3	Annotated	Direct Submission
Drosophila simulans	GCA_016746395.2	3	Annotated	Direct Submission
Drosophila sproati	GCA_018904355.1	3	Not Annotated	[63]
Drosophila sulfurigaster	GCA_023558435.1	3	Annotated	[70]
Drosophila suzukii	GCA_013340165.1	3	Annotated	Direct Submission
Drosophila virilis	GCA_003285735.2	3	Annotated	Direct Submission
Drosophila willistoni	GCA_018902025.2	2	Annotated	Direct Submission
Drosophila yakuba	GCA_016746365.2	3	Annotated	Direct Submission
Eilema depressum	GCA_914767945.1	3	Not Annotated	[45]
Ennomos fuscantarius	GCA_905220475.3	3	Not Annotated	[45]
Episyrphus balteatus	GCA_945859705.1	3	Not Annotated	[45]
Eriosoma lanigerum	GCA_013282895.1	3	Not Annotated	Direct Submission
Eulithis prunata	GCA_918843925.1	2	Not Annotated	[45]
Eupeodes corollae	GCA_945859685.1	3	Not Annotated	[45]
Folsomia candida	GCA_002217175.1	3	Annotated	[79]
Formica exsecta	GCA_003651465.1	3	Annotated	[80]
Frankliniella occidentalis	GCA_000697945.5	3	Annotated	[81]
Galleria mellonella	GCA_026898425.1	3	Annotated	Direct Submission

Glossina pallidipes	GCA_000688715.1	3	Not Annotated	Direct Submission
Glossina palpalis	GCA_000818775.1	3	Not Annotated	Direct Submission
Goniozus legneri	GCA_003055095.1	2	Not Annotated	Direct Submission
Gryllus bimaculatus	GCA_017312745.1	3	Not Annotated	[82]
Halyomorpha halys	GCA_000696795.3	3	Not Annotated	Direct Submission
Harmonia axyridis	GCA_914767665.1	3	Annotated	[45]
Harpegnathos saltator	GCA_003227715.2	3	Annotated	[61]
Helicoverpa zea	GCA_022581195.1	3	Annotated	[83]
Hermetia illucens	GCA_905115235.1	3	Annotated	Direct Submission
Hormaphis cornu	GCA_017140985.1	3	Not Annotated	[84]
Hycleus cichorii	GCA_013841215.1	3	Not Annotated	[85]
Hyles vespertilio	GCA_009982885.2	2	Not Annotated	[86]
Ichneumon xanthorius	GCA_917499995.1	3	Not Annotated	[45]
Ips nitidus	GCA_018691245.2	3	Not Annotated	[87]
Ips typographus	GCA_016097725.1	3	Not Annotated	[88]
Laodelphax striatellus	GCA_017141395.1	3	Annotated	[89]
Lasioglossum baleicum	GCA_022376115.1	2	Not Annotated	Direct Submission
Lasiommata megera	GCA_928268935.1	3	Not Annotated	[45]
Leptopilina boulardi	GCA_019393585.1	3	Not Annotated	Direct Submission
Limnephilus lunatus	GCA_917563855.2	3	Not Annotated	[45]
Linepithema humile	GCA_000217595.1	2	Annotated	[90]
Liostenogaster flavolineata	GCA_025433975.1	3	Not Annotated	Direct Submission
Lucilia cuprina	GCA_022045245.1	3	Annotated	Direct Submission
Lucilia sericata	GCA_015586225.1	3	Annotated	Direct Submission
Lymantria dispar	GCA_016802235.1	3	Not Annotated	[91]
Machimus atricapillus	GCA_933228815.1	3	Not Annotated	[45]
Megachile ligniseca	GCA_945859555.1	3	Not Annotated	[45]
Megachile rotundata	GCA_000220905.1	3	Annotated	Direct Submission
Megalopta genalis	GCA_011865705.1	3	Annotated	[92]

Melanaphis sacchari	GCA_002803265.2	3	Annotated	Direct Submission
Melitaea cinxia	GCA_905220565.1	3	Annotated	[93]
Metopolophium dirhodum	GCA_019925205.1	3	Not Annotated	Direct Submission
Mimumesa dahlbomi	GCA_917499265.3	2	Not Annotated	[45]
Monomorium pharaonis	GCA_013373865.2	3	Annotated	[94]
Musca domestica	GCA_000371365.1	3	Annotated	[95]
Mythimna separata	GCA_029852925.1	3	Not Annotated	[96]
Nasonia giraulti	GCA_016647725.1	3	Not Annotated	[97]
Nasonia vitripennis	GCA_009193385.2	3	Annotated	[98]
Nebria salina	GCA_944039245.1	2	Not Annotated	[45]
Neodiprion lecontei	GCA_021901455.1	3	Annotated	[64]
Neodiprion virginianus	GCA_021901495.1	2	Annotated	[64]
Nezara viridula	GCA_928085145.1	3	Annotated	[62]
Nicrophorus vespilloides	GCA_001412225.1	3	Annotated	[99]
Notodonta ziczac	GCA_918843915.1	3	Not Annotated	[45]
Onthophagus taurus	GCA_000648695.2	3	Annotated	Direct Submission
Ooceraea biroi	GCA_003672135.1	3	Annotated	[100]
Operophtera brumata	GCA_932527175.1	3	Annotated	[45]
Oryctes rhinoceros	GCA_020654165.1	3	Not Annotated	[101]
Ostrinia furnacalis	GCA_004193835.2	3	Not Annotated	Direct Submission
Pachypeltis micranthus	GCA_020466155.1	3	Not Annotated	[102]
Pantala flavescens	GCA_020796165.1	2	Not Annotated	Direct Submission
Pediculus humanus	GCA_000006295.1	3	Not Annotated	[103]
Periplaneta americana	GCA_025594305.2	3	Annotated	[104]
Phlebotomus argentipes	GCA_947086385.1	3	Not Annotated	Direct Submission
Phlebotomus papatasi	GCA_024763615.2	3	Not Annotated	Direct Submission
Photinus pyralis	GCA_008802855.1	3	Annotated	[105]
Phyllotreta striolata	GCA_918026865.1	3	Annotated	[62]
Plodia interpunctella	GCA_027563975.1	3	Annotated	[47]
Plutella xylostella	GCA_932276165.1	3	Annotated	[45]
Pogonomyrmex californicus	GCA_024349325.1	3	Not Annotated	[106]

Polistes dominula	GCA_001465965.1	2	Annotated	[107]
Polistes fuscatus	GCA_010416935.1	3	Annotated	[108]
Polypedilum vanderplanki	GCA_018290095.1	3	Annotated	Direct Submission
Propsilocerus akamusi	GCA_018397935.1	3	Not Annotated	[109]
Rhogogaster chlorosoma	GCA_944452935.1	3	Not Annotated	[45]
Rhopalosiphum padi	GCA_020882245.1	3	Not Annotated	Direct Submission
Rhynchophorus ferrugineus	GCA_030347505.1	3	Annotated	[110]
Riptortus pedestris	GCA_019009955.1	3	Not Annotated	[111]
Sarcophaga subvicina	GCA_936449025.2	2	Not Annotated	[45]
Scaptomyza flava	GCA_030179655.1	3	Not Annotated	[112]
Schizaphis graminum	GCA_020882235.1	3	Not Annotated	Direct Submission
Schlechtendalia chinensis	GCA_019022885.1	3	Not Annotated	[70]
Sipha flava	GCA_003268045.1	3	Annotated	Direct Submission
Sitobion avenae	GCA_019425605.1	3	Not Annotated	Direct Submission
Sitobion miscanthi	GCA_008086715.1	2	Not Annotated	[113]
Sitophilus oryzae	GCA_002938485.2	3	Annotated	[114]
Sogatella furcifera	GCA_017141385.1	3	Not Annotated	Direct Submission
Solenopsis invicta	GCA_016802725.1	3	Annotated	Direct Submission
Spodoptera exigua	GCA_902829305.4	3	Annotated	[62]
Spodoptera frugiperda	GCA_023101765.3	3	Annotated	[115]
Spodoptera litura	GCA_002706865.3	3	Annotated	[116]
Synanthedon andrenaeformis	GCA_936446665.2	3	Not Annotated	[45]
Tachina fera	GCA_905220375.1	3	Not Annotated	[45]
Temnothorax curvispinosus	GCA_003070985.1	3	Annotated	Direct Submission
Temnothorax longispinosus	GCA_030848805.1	3	Annotated	[117]
Tenebrio molitor	GCA_907166875.3	3	Annotated	[118]
Thrips palmi	GCA_012932325.1	3	Annotated	[119]
Thymelicus sylvestris	GCA_911387775.1	3	Not Annotated	[45]
Trialeurodes vaporariorum	GCA_011764245.1	2	Not Annotated	Direct Submission
Tribolium castaneum	GCA_000002335.3	3	Annotated	[120]

Tribolium freemani	GCA_939628115.1	3	Not Annotated	Direct Submission
Trichoplusia ni	GCA_003590095.1	3	Annotated	[121]
Vanessa cardui	GCA_905220365.2	3	Annotated	[45]
Vespula vulgaris	GCA_905475345.1	3	Annotated	[45]
Wasmannia auropunctata	GCA_000956235.1	2	Annotated	Direct Submission
Ypsolopha scabrella	GCA_910592155.1	2	Not Annotated	[45]
Zaprionus vittiger	GCA_018904025.1	2	Not Annotated	[63]
Zerene cesonia	GCA_012273895.2	3	Annotated	[122]
Zeugodacus cucurbitae	GCA_028554725.2	3	Not Annotated	Direct Submission

Supplementary Table S1: Species accession IDs, annotation status and corresponding reference

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