

Table S3: List of species whose transcriptomic data (1KITE) was embedded in the enriched dataset. Published transcriptomes of apoid wasps and bees included in the study of Peters *et al.*, (2017). Taxonomic classification of apoid wasps according to W. J. Pulawski (2016).

Assembly file (e3; TSA accepted)	family	subfamily	tribe	subtribe	species name
130314_1269_FCC1KFACXX_L7_INSobdTCVRAAPEI-41.tsa.fas	Ampulicidae	Ampulicinae	Ampulicini		<i>Ampulex fasciata</i>
130125_1266_FCC1MY6ACXX_L3_INSnrgTAFRAAPEI-221.tsa.fas	Ampulicidae	Dolichurinae			<i>Dolichurus corniculus</i>
110817_1809_FCD05CDACXX_L3_INSbusTBNRAAPEI-121.tsa.fas	Andrenidae				<i>Andrena vaga</i>
130919_1247_FCC2V7VACXX_L1_INSoftmTCNRAAPEI-41.tsa.fas	Andrenidae				<i>Camptopoem sacrum</i>
130206_1238_FCC1LVUACXX_L1_INSlupTAMRAAPEI-74.tsa.fas	Andrenidae				<i>Panurgus dentipes</i>
110817_1809_FCD05CDACXX_L3_INSbusTBGRABPEI-127.tsa.fas	Apidae				<i>Anthophora plumipes</i>
120429_1266_FCC0HG0ACXX_L7_INSyvtTATRAAPEI-46.tsa.fas	Apidae				<i>Bombus rupestris</i>
120707_1249_FCD111GACXX_L3_INSSwpTARRAAPEI-11.tsa.fas	Apidae				<i>Ceratina chalybea</i>
120707_1249_FCD111GACXX_L3_INSSwpTBBRAAPEI-21.tsa.fas	Apidae				<i>Epeolus variegatus</i>
130728_1263_FCD23HKACXX_L2_INSoftmTASRAAPEI-84.tsa.fas	Apidae				<i>Eucera nigrescens</i>
130919_1247_FCC2V7VACXX_L6_INSinlTAORAAPEI-32.tsa.fas	Apidae				<i>Eucera plumigera</i>
130919_1247_FCC2V7VACXX_L6_INSinlTAXRAAPEI-55.tsa.fas	Apidae				<i>Eucera syriaca</i>
120316_1251_FCC0HJ1ACXX_L8_INStmbTANRAAPEI-89.tsa.fas	Apidae				<i>Euglossa dilemma</i>
110817_1809_FCD05CDACXX_L3_INSbusTBQRAAPEI-82.tsa.fas	Apidae				<i>Nomada lathburiana</i>
121030_1251_FCC19KWACXX_L1_INSeqtTDERAAPEI-75.tsa.fas	Apidae				<i>Tetragonula carbonaria</i>
120707_1249_FCD111GACXX_L4_INSSwpTAYRAAPEI-18.tsa.fas	Apidae				<i>Tetralonia malvae</i>
131012_1246_FCC2J5BACXX_L8_INSinlTAFRAAPEI-61.tsa.fas	Apidae				<i>Tetraloniella nigriceps</i>
131012_1246_FCC2J5BACXX_L8_RINSinlTDKRAAPEI-118.tsa.fas	Apidae				<i>Tetraloniella sp</i>
120215_1277_FCD0KP1ACXX_L7_INSjdsTARAAPEI-44.tsa.fas	Apidae				<i>Thyreus orbatu</i>
110817_1809_FCD05CDACXX_L3_INSbusTBORAAPEI-80.tsa.fas	Apidae				<i>Xylocopa violacea</i>
130728_1263_FCD23HKACXX_L1_INSoftmTACRAAPEI-35.tsa.fas	Apidae				<i>Ammobates syriacus</i>
110817_1809_FCD05CDACXX_L3_INSbusTBARABPEI-119.tsa.fas	Colletidae				<i>Colletes cunicularius</i>
120707_1249_FCD111GACXX_L2_INSSwpTAMRAAPEI-30.tsa.fas	Colletidae				<i>Hylaeus variegatus</i>
121010_1249_FCD1C4BACXX_L6_INSeqtTAQRAAPEI-12.tsa.fas	Crabronidae	Astatinae			<i>Astata minor</i>
130919_1247_FCC2V7VACXX_L7_RINSinlTBHRAAPEI-136.tsa.fas	Crabronidae	Astatinae			<i>Dryudella pinguis</i>
120429_1266_FCC0HG0ACXX_L8_INSyvtTBDRAAPEI-9.tsa.fas	Crabronidae	Bembicinae	Alyssontini		<i>Alysson spinosus</i>
120521_1249_FCC0U4RACXX_L3_INSyvtTBERAAPEI-11.tsa.fas	Crabronidae	Bembicinae	Bembicini	Gorytina	<i>Gorytes laticinctus</i>
120707_1249_FCD111GACXX_L3_INSSwpTAFRAAPEI-16.tsa.fas	Crabronidae	Bembicinae	Bembicini	Gorytina	<i>Harpactus elegans</i>
120126_1283_FCC0L80ACXX_L2_INSnfrTBORAAPEI-14.tsa.fas	Crabronidae	Bembicinae	Bembecini	Spheciina	<i>Sphecius convallis</i>
120429_1266_FCC0HG0ACXX_L8_INSyvtTARAAAPEI-44.tsa.fas	Crabronidae	Bembicinae	Bembecini	Stizina	<i>Stizoides tridentatus</i>
130112_1269_FCC1M19ACXX_L3_INSeqtTAGRAAPEI-55.tsa.fas	Crabronidae	Bembicinae	Bembecini	Stizina	<i>Stizus continus</i>
120707_1249_FCD111GACXX_L4_INSSwpTBNRAAPEI-44.tsa.fas	Crabronidae	Bembicinae	Bembecini	Bembicina	<i>Bembix rostrata</i>
120707_1249_FCD111GACXX_L4_INSSwpTBJRAAPEI-34.tsa.fas	Crabronidae	Bembicinae	Nyssonini	Nyssonina	<i>Nysson niger</i>
120707_1249_FCD111GACXX_L4_INSSwpTBJRAAPEI-37.tsa.fas	Crabronidae	Crabroninae	Crabronini	Crabronina	<i>Crabro peltarius</i>
120707_1249_FCD111GACXX_L4_INSSwpTBJRAAPEI-46.tsa.fas	Crabronidae	Crabroninae	Crabronini	Crabronina	<i>Crossocerus quadrimaculatus</i>
121221_1260_FCC1GFFACXX_L3_INSlupTBBRAAPEI-15.tsa.fas	Crabronidae	Crabroninae	Crabronini	Crabronina	<i>Lestica clypeata</i>
130728_1263_FCD23HKACXX_L8_INSoftmTBRAAPEI-94.tsa.fas	Crabronidae	Crabroninae	Larnini	Larnina	<i>Liris sp</i>
120707_1249_FCD111GACXX_L1_INSSwpTAKRAAPEI-21.tsa.fas	Crabronidae	Crabroninae	Larnini	Gastrosericina	<i>Tachysphex fulvitaris</i>
130928_1232_FCC2UW4ACXX_L1_RINSinlTDERAAPEI-83.tsa.fas	Crabronidae	Crabroninae	Miscophini		<i>Nitela sp</i>
120215_1277_FCD0KP1ACXX_L8_INSjdsTBIRAAPEI-75.tsa.fas	Crabronidae	Crabroninae	Oxybelini		<i>Oxybelus bipunctatus</i>
130728_1263_FCD23HKACXX_L2_INSoftmTAURAAPEI-93.tsa.fas	Crabronidae	Crabroninae	Palarini		<i>Palarus histrio</i>
130206_1238_FCC1LVUACXX_L3_INSeqtTCLRAAPEI-44.tsa.fas	Crabronidae	Crabroninae	Trypoxylini		<i>Pison atrum</i>
120429_1266_FCC0HG0ACXX_L8_INSyvtTAWRAAPEI-88.tsa.fas	Crabronidae	Crabroninae	Trypoxylini		<i>Trypoxylon figulus</i>
120215_1277_FCD0KP1ACXX_L8_INSjdsTAYRAAPEI-43.tsa.fas	Crabronidae	Dinetinae			<i>Dinetus pictus</i>
121221_1260_FCC1GFFACXX_L3_INSlupTBBRAAPEI-17.tsa.fas	Crabronidae	Mellininae			<i>Mellinus arvensis</i>
120215_1277_FCD0KP1ACXX_L7_INSjdsTBMRAAPEI-88.tsa.fas	Crabronidae	Pemphredonina	Pemphredonini	Pemphredonini	<i>Diodontus minutus</i>
121221_1260_FCC1GFFACXX_L3_INSlupTBHRAAPEI-21.tsa.fas	Crabronidae	Pemphredonina	Pemphredonini	Pemphredonini	<i>Passaloecus eremita</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBBRAAPEI-95.tsa.fas	Crabronidae	Pemphredonina	Pemphredonini	Pemphredonini	<i>Pemphredon lugens</i>
121221_1260_FCC1GFFACXX_L3_INSlupTBJRAAPEI-30.tsa.fas	Crabronidae	Pemphredonina	Pemphredonini	Spilomenina	<i>Spilomena beata</i>
120707_1249_FCD111GACXX_L4_INSSwpTATRAAPEI-13.tsa.fas	Crabronidae	Pemphredonina	Psenini		<i>Psenulus fuscipennis</i>
120725_1247_FCC0WHRACXX_L4_INSSwpTBTBABPEI-62.tsa.fas	Crabronidae	Philanthinae	Philanthini	Philanthina	<i>Philanthus triangulum</i>
130728_1263_FCD23HKACXX_L8_INSoftmTBQRAAPEI-84.tsa.fas	Crabronidae	Philanthinae	Pseudoscoliini		<i>Pseudoscolia sinaitica</i>
130206_1238_FCC1LVUACXX_L4_INSeqtTDARAPEI-109.tsa.fas	Halictidae				<i>Dufourea dentiventris</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBIRAAPEI-15.tsa.fas	Halictidae				<i>Halictus quadricinctus</i>
120707_1249_FCD111GACXX_L1_INSSwpTAORAAPEI-33.tsa.fas	Halictidae				<i>Lasiglossum xanthopus</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBJRAAPEI-41.tsa.fas	Halictidae				<i>Nomia diversipes</i>
130314_1269_FCC1KFACXX_L7_INSobdTCZRAAPEI-56.tsa.fas	Halictidae				<i>Nomioides sp.</i>
110817_1809_FCD05CDACXX_L3_INSbusTBPRAAPEI-81.tsa.fas	Halictidae				<i>Sphecodes albibras</i>
120707_1249_FCD111GACXX_L3_INSSwpTAXRAAPEI-17.tsa.fas	Halictidae				<i>Systropha curvicornis</i>
120707_1249_FCD111GACXX_L4_INSSwpTAVRAAPEI-15.tsa.fas	Megachilidae				<i>Anthidium manicatum</i>
120707_1249_FCD111GACXX_L2_INSSwpTAHRAAPEI-18.tsa.fas	Megachilidae				<i>Chelostoma florissomme</i>
120707_1249_FCD111GACXX_L4_INSSwpTBLRAAPEI-41.tsa.fas	Megachilidae				<i>Coelioxys conoidea</i>
120707_1249_FCD111GACXX_L1_INSSwpTADRAAPEI-14.tsa.fas	Megachilidae				<i>Dioxys cincta</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBLRAAPEI-44.tsa.fas	Megachilidae				<i>Heriades truncorum</i>
130112_1269_FCC1M19ACXX_L8_INSlupTAWRAAPEI-9.tsa.fas	Megachilidae				<i>Lithurgus chrysurus</i>
120429_1266_FCC0HG0ACXX_L7_INSyvtTAORAAPEI-39.tsa.fas	Megachilidae				<i>Megachile willughbiella</i>
110817_1809_FCD05CDACXX_L3_INSbusTBFRAAPEI-126.tsa.fas	Megachilidae				<i>Osmia cornuta</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBMRAAPEI-45.tsa.fas	Megachilidae				<i>Stelis punctulatissima</i>
121221_1260_FCC1GFFACXX_L3_INSlupTAYRAAPEI-12.tsa.fas	Melittidae				<i>Dasygaster hirtipes</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBORAAPEI-47.tsa.fas	Melittidae				<i>Macropis fulvipes</i>
121221_1260_FCC1GFFACXX_L8_INSlupTBFRAAPEI-19.tsa.fas	Melittidae				<i>Melitta haemorrhoidalis</i>
121221_1260_FCC1GFFACXX_L3_INSlupTBLRAAPEI-33.tsa.fas	Sphecidae s. str.	Ammophilinae			<i>Ammophila sabulosa</i>
120707_1249_FCD111GACXX_L4_INSSwpTBBRAAPEI-56.tsa.fas	Sphecidae s. str.	Ammophilinae			<i>Podalonia hirsuta</i>
130728_1263_FCD23HKACXX_L3_INSoftmTBMRAAPEI-72.tsa.fas	Sphecidae s. str.	Chloriontinae			<i>Chlorion hirtum</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBQRAAPEI-57.tsa.fas	Sphecidae s. str.	Sceliphrinae	Sceliphirini		<i>Chalybion californicum</i>
120707_1249_FCD111GACXX_L3_INSSwpTAZRAAPEI-19.tsa.fas	Sphecidae s. str.	Sceliphrinae	Sceliphirini		<i>Sceliphron curvatum</i>
120521_1249_FCC0U4RACXX_L7_INSyvtTBSRAAPEI-74.tsa.fas	Sphecidae s. str.	Sphecinae	Prionychini		<i>Prionyx kiribii</i>
120707_1249_FCD111GACXX_L3_INSSwpTBDRAAPEI-30.tsa.fas	Sphecidae s. str.	Sphecinae	Sphecini		<i>Isodontia mexicana</i>
120429_1266_FCC0HG0ACXX_L7_INSyvtTAIRAAPEI-18.tsa.fas	Sphecidae s. str.	Sphecinae	Sphecini		<i>Spheg funerarius</i>
Outgroups					
120429_1266_FCC0HG0ACXX_L7_INSyvtTABRAAPEI-11.tsa.fas	Mutillidae				<i>Smicromyrmec rufipes</i>
120707_1249_FCD111GACXX_L1_INSSwpTABRAAPEI-12.tsa.fas	Pompilidae				<i>Pompilus cinereus</i>
120521_1249_FCC0U4RACXX_L8_INSyvtTBVRAAPEI-84.tsa.fas	Sapygidae				<i>Sapyga quinquepunctata</i>
120521_1249_FCC0U4RACXX_L8_INSyvtTBXRAAPEI-21.tsa.fas	Scoliidae				<i>Colpa sexmaculata</i>
120429_1266_FCC0HG0ACXX_L7_INSyvtTADRAAPEI-13.tsa.fas	Scoliidae				<i>Scolia hirta</i>
120429_1266_FCC0HG0ACXX_L7_INSyvtTAMRAAPEI-36.tsa.fas	Tiphidae				<i>Tiphia femorata</i>