

Table 1: Chemosensory sequences used in phylogenetic analyses*

Order	Species	Number of Odorant Receptors	Number of Gustatory Receptors	Number of Ionotropic Receptors	Number of Odorant Binding Proteins	Reference/Source
Hymenoptera	<i>Apis mellifera</i>	162	10	21	21	Foret and Maleszka 2006, Robertson and Wanner 2006, Croset et al 2010, Sadd et al 2015
	<i>Bombus terrestris</i>	158	21	22	16	Sadd et al 2015
	<i>Lasioglossum albipes</i>	158	23			Zhou et al 2015
	<i>Nasonia vitripennis</i>	226	47	153	90	Robertson et al 2011, Viera et al 2012, Waterhouse and Robertson 2018
	<i>Ceratosolen solmsi</i>	56	5	11	7	Ziao et al 2013, Zhou et al 2015
	<i>Microplitis demolitor</i>	203	79	6	20	Peng et al 2017, Wang et al 2015, Zhou et al 2015
	<i>Atta cephalotes</i>	341	89	-	-	Zhou et al 2015
	<i>Acromyrmex echinator</i>	375	116	-	-	Zhou et al 2015

	<i>Solenopsis invicta</i>	333	219	-	18 (Only 16 on Genbank)	Gotzek et al 2011
	<i>Pogonomyrmex barbatus</i>	269	59	20	-	Smith et al 2011
	<i>Athalia rosae</i>	13	9	12		Genbank
	<i>Orussus abietinus</i>	27	4	12		Genbank
	<i>Cephus cinctus</i>	67	34	49	15	Waterhouse and Robertson 2018
	<i>Sirex noctilio</i>	51	12	51	14	Current study
Diptera	<i>Drosophila melanogaster</i>	62	68	66	51	Robertson et al 2003, Rytz et al 2013
Coleoptera	<i>Tribolium castaneum</i>	258	62	23	50	Engstonia et al 2008, Xiao et al 2013
	<i>Dendroctonus ponderosae</i>	49	2	15	31	Andersson et al. 2013
	<i>Ips typographus</i>	40	5	7	15	Andersson et al. 2013
Lepidoptera	<i>Manduca sexta</i>	59	45	21	6	Koenig et al 2015

*These sequences do not necessarily correspond to the full sets of sequences available for each of these species, but reflect the sequences used in this study.