



Digital supplementary material to

MEURVILLE, M.-P. & LEBŒUF, A.C. 2021: Trophallaxis: the functions and evolution of social fluid exchange in ant colonies (Hymenoptera: Formicidae). – Myrmecological News 31: 1-30.

The content of this digital supplementary material was subject to the same scientific editorial processing as the article it accompanies. However, the authors are responsible for copyediting and layout.

Species name	Subfamily	Adult-to-adult	Adult-to-larva and larva-to-adult	References
<i>Acanthomyrmex ferox</i>	Myrmicinae	Stomodeal trophallaxis	Trophic eggs are laid by the queen, majors and minors, and consumed by nestmates and larvae.	(Gobin & Ito 2000)
<i>Acanthomyrmex notabilis</i>	Myrmicinae	Stomodeal trophallaxis between workers	Larvae fed by minor workers via stomodeal trophallaxis	(Moffett 1985)
<i>Acromyrmex balzani</i>	Myrmicinae	Stomodeal trophallaxis between workers	Proctodeal trophallaxis: Workers drink from larval anal droplets	(Lopes & al. 2005) (Moreira & al. 2007)
<i>Acromyrmex crassispinus</i>	Myrmicinae	No stomodeal trophallaxis observed	Proctodeal trophallaxis: Workers drink from larval anal droplets	(Lopes & al. 2005) (Lopes & al. 2017)
<i>Acromyrmex echinator</i>	Myrmicinae		Trophic eggs mostly laid by majors	(Dijkstra & al. 2005)
<i>Acromyrmex octospinosus</i>	Myrmicinae	Stomodeal trophallaxis Queens regurgitate fungus pellets.	Trophic eggs mostly laid by majors	(Dijkstra & al. 2005) (Richard & Errard 2009) (Malato & al. 1977) (Quinlan & Cherrett 1978)
<i>Acromyrmex rugosus</i>	Myrmicinae	Debated	Proctodeal trophallaxis: Workers drink from larval anal droplets	(Moreira & al. 2007) (Lopes & al. 2005)
<i>Acromyrmex sp</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Moreira & al. 2007)
<i>Acromyrmex subterraneus</i>	Myrmicinae	Stomodeal trophallaxis		(Camargo & al. 2006)(<i>Acromyrmex subterraneus brunneus</i>) (Moreira & al. 2010)(<i>Acromyrmex subterraneus subterraneus</i>) (Moreira & al. 2006) (<i>Acromyrmex subterraneus subterraneus</i>) (Richard & Errard 2009) (<i>Acromyrmex subterraneus</i>)
<i>Amblyopone australis</i>	Amblyoponinae	Never observed	Adult -> larvae stomodeal trophallaxis never observed	(Haskins & Haskins 1951a)
<i>Aneuretus simoni</i>	Aneuretinae	Stomodeal trophallaxis between adults		(Traniello & Jayasuriya 1985)
<i>Anochetus kemphi</i>	Ponerinae	Stomodeal trophallaxis rare but observed between workers, and between workers and queen	Larvae fed by stomodeal trophallaxis rare but observed	(Torres & al. 2000)
<i>Anoplolepis gracilipes</i>	Formicinae	Trophallaxis from adults to queen, and between adults	Trophic eggs fed to worker larvae, sexual larvae, workers and sexuals. Adult -> larvae trophallaxis never observed.	(Parmentier 2020) (Lee & al. 2017) (Hoffmann 2014)
<i>Aphaenogaster rudis</i>	Myrmicinae		Larvae fed with trophic eggs.	(Epps & Penick 2018)
<i>Aphaenogaster senilis</i>	Myrmicinae	Tool-mediated pseudotrophallaxis Never observed		(Lenoir & al. 2001, Lőrinczi 2014, Maák & al. 2017)
<i>Aphaenogaster subterranea</i>	Myrmicinae	Tool-mediated pseudotrophallaxis never observed	Larvae fed by trophallaxis	(Le Masne 1953, Lőrinczi 2014, Maák & al. 2017)
<i>Aphaenogaster testaceopilosa</i>	Myrmicinae		Larvae fed via stomodeal trophallaxis Larvae regurgitate fluid	(Le Masne 1953)
<i>Atopomyrmex mocquerysi</i>	Myrmicinae	Stomodeal trophallaxis between workers		https://www.alexanderwild.com/Ants/Taxonomic-List-of-Ant-Genera/Atopomyrmex/i-67CV32P
<i>Atta cephalotes</i>	Myrmicinae		Trophic eggs laid by workers and fed to queen and larvae. Adult-larvae stomodeal trophallaxis never observed	(Quinlan & Cherrett 1979, Dijkstra & al. 2005)
<i>Atta laevigata</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Moreira & al. 2007)
<i>Atta sexdens</i>	Myrmicinae	No stomodeal trophallaxis observed between adults	Trophic eggs laid by workers and fed to queen and larvae.	(Schneider 2000, Dijkstra & al. 2005, Moreira & al. 2007)(<i>Atta sexdens rubropilosa</i>)
<i>Atta texana</i>	Myrmicinae	Stomodeal trophallaxis	Proctodeal trophallaxis. Workers drink from larval anal droplets	(Echols 1966)
<i>Basiceros manni</i>	Myrmicinae	No stomodeal trophallaxis observed		(Hölldobler & Wilson 1986)
<i>Blepharidatta conops</i>	Myrmicinae		Adults feed larvae via stomodeal trophallaxis	(Diniz & al. 1998, Brandão & al. 2001, Pereira & al. 2014)
<i>Bothroponera soror</i>	Ponerinae		Queens did not feed larvae via trophallaxis	(Haskins 1941)
<i>Brachymyrmex obscurior</i>	Formicinae		Workers feed larvae by stomodeal trophallaxis	(Cassill & Tschinkel 1996)
<i>Brachymyrmex patagonicus</i>	Formicinae	Stomodeal trophallaxis		(Keefer 2016)
<i>Brachyponera chinensis</i>	Ponerinae	Stomodeal trophallaxis		(Masuko 1986a)
<i>Brachyponera lutea</i>	Ponerinae		Queens can feed larvae by stomodeal trophallaxis	(Haskins & Haskins 1950)
<i>Calyptomyrmex sp.</i>	Formicinae	Stomodeal trophallaxis between workers and queen	Larval hemolymph feeding by punctures Workers drink larval secretions via proctodeal trophallaxis. Queen fed on eggs laid by workers	(Ito 2001)
<i>Camponotus cruentatus</i>	Formicinae	Stomodeal trophallaxis		(Bles & al. 2018)
<i>Camponotus fellah</i>	Formicinae	Stomodeal trophallaxis between adults		(Boulay & al. 2000, Boulay & Lenoir 2001, Boulay & al. 2004)
<i>Camponotus floridanus</i>	Formicinae	Worker-worker stomodeal trophallaxis	Workers feed larvae by stomodeal trophallaxis	(LeBoeuf & al. 2016)
<i>Camponotus herculeanus</i>	Formicinae	Stomodeal trophallaxis		(Ayre 1963)
<i>Camponotus ligniperdus pictus</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019) (<i>Camponotus ligniperdus</i>)
<i>Camponotus mus</i>	Formicinae	Stomodeal trophallaxis		(Mc Cabe & al. 2006, Josens & al. 2016)
<i>Camponotus pennsylvanicus</i>	Formicinae	Stomodeal trophallaxis		(Hamilton & al. 2011)
<i>Camponotus sanctus</i>	Formicinae	Stomodeal trophallaxis		Greenwald et al., 2019
<i>Camponotus senex</i>	Formicinae	Proctodeal trophallaxis. Workers drink anal secretion from the queen.		(Santos & al. 2005)
<i>Camponotus vagus</i>	Formicinae	Stomodeal trophallaxis		(Cassill & Tschinkel 1996, Gallè & al. 2014)
<i>Camponotus yamaokai</i>	Formicinae	Stomodeal trophallaxis		(Sanada & al. 1997, Sanada & al. 1998)
<i>Cardiocondyla emeryi</i>	Myrmicinae		Larvae fed by stomodeal trophallaxis by workers	(Creighton & Snelling 1974) (<i>Cardiocondyla ectopica</i>)
<i>Cardiocondyla mauritanica</i>	Myrmicinae		Larvae fed by stomodeal trophallaxis by workers	(Creighton & Snelling 1974)
<i>Cardiocondyla nuda</i>	Myrmicinae		Larvae fed by stomodeal trophallaxis by workers	(Creighton & Snelling 1974)
<i>Cardiocondyla obscurior</i>	Myrmicinae	Stomodeal trophallaxis between workers and queen	Larvae fed by stomodeal trophallaxis by workers	(Schrempf & Heinze 2006, Schrempf & al. 2017)

<i>Carebara overbecki</i>	Myrmicinae	Stomodeal trophallaxis between adults	Adults feed larvae by regurgitation	(Mark W. Moffett 1986b)(<i>Oligomyrmex overbecki</i>)
<i>Carebara perpusilla</i>	Myrmicinae	Adult-adult stomodeal trophallaxis	Adults feed larvae via stomodeal trophallaxis	Khalife and Peeters, 2020 (in press)
<i>Carebara termitolestes</i>	Myrmicinae		Larvae regurgitate liquid that is ingested by adults	(Le Masne 1953)
<i>Cataglyphis iberica</i>	Formicinae	Stomodeal trophallaxis		(Dahbi & al. 1999, Lenoir & al. 2001)
<i>Cataglyphis nigra</i>	Formicinae	Stomodeal trophallaxis		(Lenoir & al. 2001)(<i>Cataglyphis niger</i>)
<i>Cataulacus muticus</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Maschwitz & Moog 2000) https://www.alexanderwild.com/Ants/Taxonomic-List-of-Ant-Genera/Cephalotes/i-ZPcpGdK
<i>Cephalotes atratus</i>	Myrmicinae	Stomodeal trophallaxis		(d'Avila & al. 2005)
<i>Cephalotes goniodontus</i>	Myrmicinae	Stomodeal trophallaxis		(Gordon 2012)
<i>Cephalotes pusillus</i>	Myrmicinae	Stomodeal trophallaxis		https://www.alexanderwild.com/Ants/Taxonomic-List-of-Ant-Genera/Cephalotes/i-fmj4Smx
<i>Cephalotes rohweri</i>	Myrmicinae	Proctodeal trophallaxis. Newly hatched callows drink anal secretions from older workers.		(Lanan & al. 2016)
<i>Cephalotes varians</i>	Myrmicinae	Proctodeal trophallaxis		(Wilson 1976)(<i>Zacryptocerus varians</i>)
<i>Chelaner whitei</i>	Myrmicinae	Stomodeal trophallaxis between workers Stomodeal trophallaxis between workers and sexuals	Larvae regurgitate food to adults	(Buckley 1982) (<i>Monomorium armstrongi</i>)
<i>Colobopsis nipponica</i>	Formicinae	Stomodeal trophallaxis between workers		(Hasegawa 1993)
<i>Crematogaster ashmeadi</i>	Myrmicinae	Stomodeal trophallaxis No proctodeal trophallaxis observed	Larvae fed by stomodeal trophallaxis	(Cole 1983)
<i>Crematogaster castanea</i>	Myrmicinae	Stomodeal trophallaxis		(Wild & Brake 2009)(<i>Crematogaster castanea tricolor</i>)
<i>Crematogaster laeviuscula</i>	Myrmicinae		Larvae fed by stomodeal trophallaxis	(Petralia & Vinson 1979)
<i>Crematogaster minutissima</i>	Myrmicinae		Workers rarely feed larvae by stomodeal trophallaxis Larvae fed mostly on eggs.	(Heinze & al. 1995, Cassill & Tschinkel 1996)
<i>Cryptopone gilva</i>	Ponerinae	Stomodeal trophallaxis between adults, rarely		(Haskins 1931)(<i>Euponera gilva</i>)
<i>Cryptopone sauteri</i>	Ponerinae	No stomodeal trophallaxis		(Masuko 1986b)
<i>Cyphomyrmex rimosus</i>	Myrmicinae	Stomodeal trophallaxis between workers.		(Murakami & Higashi 1997)
<i>Daceton armigerum</i>	Myrmicinae	Stomodeal trophallaxis		(Hölldobler & Wilson 2009, p.255)
<i>Diacamma sp.</i>	Ponerinae	Mandibular pseudotrophallaxis Corporal pseudotrophallaxis		(Maschwitz & al. 2000)
<i>Diacamma sp. from Japan</i>	Ponerinae	Stomodeal		(Fujioaka & Okada 2019)
<i>Dinomyrmex gigas</i>	Formicinae	Stomodeal trophallaxis between workers		(Pfeiffer & Linsenmair 2007) (<i>Camponotus gigas</i>)
<i>Dinoponera quadriceps</i>	Ponerinae	No stomodeal trophallaxis	No stomodeal trophallaxis between adults and larvae.	(Nascimento & al. 2013)
<i>Discothyrea sauteri</i>	Proceratiinae	No trophallaxis observed between the workers		(Masuko 1986a)
<i>Dolichoderus attelaboides</i>	Dolichoderinae	Proctodeal trophallaxis between adults		(Cook & Davidson 2006)
<i>Dolichoderus decollatus</i>	Dolichoderinae	Proctodeal trophallaxis between adults		(Cook & Davidson 2006)
<i>Dolichoderus quadripunctatus</i>	Dolichoderinae	Proctodeal trophallaxis. When no brood, queen drinks workers anal secretions		(Torossian 1959)
<i>Dolichoderus thoracicus</i>	Dolichoderinae	Stomodeal trophallaxis		(Lin & al. 2017)
<i>Dorylus laevigatus</i>	Dorylinae	Never observed		(Weissflog & al. 2000)
<i>Eciton dulcium</i>	Dorylinae	Adult-adult stomodeal trophallaxis		(Rettenmeyer 1963)
<i>Eciton hamatum</i>	Dorylinae	Workers drink anal droplets produced by the queen.		(Schneirla 1944)
<i>Ectatomma brunneum</i>	Ectatomminae		Mandibular pseudotrophallaxis. Workers feed larvae with infrabuccal droplets	(Locher & al. 2009)
<i>Ectatomma permagnum</i>	Ectatomminae		Mandibular pseudotrophallaxis. Workers feed larvae with infrabuccal droplets	(Brandão & Paiva 1989)
<i>Ectatomma ruidum</i>	Ectatomminae	Mandibular pseudotrophallaxis Never observed	Never observed	(Corbara & al. 2010, Cunningham 2019)
<i>Ectatomma tuberculatum</i>	Ectatomminae	Mandibular pseudotrophallaxis		(Hölldobler 1985)
<i>Eurhopalothrix biroi</i>	Myrmicinae	Rare / absent stomodeal trophallaxis between workers		(Wilson 1956)
<i>Eurhopalothrix heliscata</i>	Myrmicinae	Rare / absent stomodeal trophallaxis between workers		(Hölldobler & Wilson 1985)
<i>Forelius damiani</i>	Dolichoderinae	Stomodeal trophallaxis		https://www.alexanderwild.com/Ants/Taxonomic-List-of-Ant-Genera/Forelius/i-3GQqK2H/A
<i>Forelius pruinosus</i>	Dolichoderinae		Larvae fed by stomodeal trophallaxis	(Petralia & Vinson 1979) (<i>Iridomyrmex pruinosum</i>)
<i>Formica cinerea</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Formica exsecta</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Formica fusca</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Formica glacialis</i>	Formicinae	Stomodeal trophallaxis		(Barrett & al. 2020)
<i>Formica integra</i>	Formicinae	Stomodeal trophallaxis		(Wilkinson & al. 1978)
<i>Formica japonica</i>	Formicinae	Stomodeal trophallaxis		(Wada-Katsumata & al. 2011)
<i>Formica lugubris</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Formica obscuripes</i>	Formicinae	Stomodeal trophallaxis		(Alpert & Akre 1973)
<i>Formica paralugubris</i>	Formicinae	Stomodeal trophallaxis		(Chapuisat & al. 2005)
<i>Formica polyctena</i>	Formicinae	Stomodeal trophallaxis		(Gösswald & Kloft 1963, Aubert & Richard 2008)
<i>Formica pratensis</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Formica rufa</i>	Formicinae	Stomodeal trophallaxis		(Gösswald & Kloft 1963)
<i>Formica sanguinea</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Formica subintegra</i>	Formicinae	Stomodeal trophallaxis		(Hunter & Mathis 2020)
<i>Formica truncorum</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)

<i>Formicoxenus provancheri</i>	Myrmicinae	Stomodeal trophallaxis with hosts <i>Myrmica incompleta</i> Stomodeal trophallaxis between workers		(Errard & al. 1997)
<i>Gnamptogenys bicolor</i>	Ectatomminae		Larval hemolymph feeding through cuts in larval cuticle	(Gobin & Ito 2000)
<i>Gnamptogenys cribrata</i>	Ectatomminae		Larval hemolymph feeding through cuts in larval cuticle	(Gobin & Ito 2000)
<i>Gnamptogenys menadensis</i>	Ectatomminae		Trophic eggs fed to larvae Larval hemolymph feeding through cuts in larval cuticle	(Gobin & al. 1998, Gobin & Ito 2000, Gobin et al. 1999)
<i>Gnamptogenys striatula</i>	Ectatomminae	Never observed	No adult -> larva stomodeal trophallaxis	(Passera & Aron 2005)
<i>Harpegnathos saltator</i>	Ponerinae		No adult -> larva stomodeal trophallaxis	(Penick & Liebig 2012)
<i>Hypoponera eduardi</i>	Ponerinae	Somodeal trophallaxis	Larvae suspected to be fed by stomodeal trophallaxis Collection of larval anal droplets by workers, but no ingestion.	(Le Masne 1948, Le Masne 1952, Le Masne 1953)(Ponera eduardi)
<i>Hypoconerina sp. (JFC 11104)</i>	Ponerinae	Stomodeal trophallaxis between adults		(Hashimoto & al. 1995)
<i>Iridomyrmex humilis</i>	Dolichoderinae	Rare trophallaxis between queens Worker-worker stomodeal trophallaxis	Workers feed larvae by stomodeal trophallaxis	(Hölldobler & Carlin 1985, Vargo & Passera 1991, Cassill & Tschinkel 1996)
<i>Lasius brunneus</i>	Formicinae	Stomodeal trophallaxis		(Köhler 2012)
<i>Lasius flavus</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Lasius fuliginosus</i>	Formicinae	Stomodeal trophallaxis between workers		(Hölldobler & Kwapich 2017)
<i>Lasius neglectus</i>	Formicinae	Autotrophallaxis. Stomodeal trophallaxis		(Konrad & al. 2012, Tragust & al. 2013)
<i>Lasius niger</i>	Formicinae	Stomodeal trophallaxis	Trophic eggs fed to larvae	(Baroni Urbani 1991, Buffin & al. 2011)
<i>Lasius platythorax</i>	Formicinae	Stomodeal trophallaxis		(Bos & al. 2019)
<i>Leptanilla charonea</i>	Leptanillinae		Adults drink haemolymph from larval tubercule	(Barandica & al. 2008)
<i>Leptanilla japonica</i>	Leptanillinae	Absent	Adults drink haemolymph from larval tubercule	(Masuko 1986a)
<i>Leptogenys elongata</i>	Ponerinae		No adult -> larva stomodeal trophallaxis	(Wheeler 1918)
<i>Leptogenys schwabi</i>	Ponerinae	Never observed		(Davies & al. 1994)
<i>Leptomymex erythrocephalus</i>	Dolichoderinae	Stomodeal trophallaxis deduced from repletes		(Mcclenahan & al. 2016)
<i>Leptomymex nigriventris</i>	Dolichoderinae		Adults feed larvae via stomodeal trophallaxis	(Wheeler 1915)
<i>Leptothorax acervorum</i>	Myrmicinae	Rare stomodeal trophallaxis between queens	Queens fed by larvae through stomodeal trophallaxis	(Bourke 1991)
<i>Leptothorax muscorum</i>	Myrmicinae	Stomodeal trophallaxis	Workers feed larvae with stomodeal trophallaxis	(Stuart & Bell 1980)
<i>Linepithema humile</i>	Dolichoderinae	Stomodeal trophallaxis		(Sola & Josens 2016)S
<i>Liometopum luctuosum</i>	Dolichoderinae	Queen-queen stomodeal trophallaxis		(Hoey-Chamberlain & al. 2013)
<i>Liometopum occidentale</i>	Dolichoderinae	Stomodeal trophallaxis between adults		(Hoey-Chamberlain 2012)
<i>Manica bradleyi</i>	Myrmicinae		Larvae suspected to regurgitate food to workers	(Went & al. 1972)
<i>Manica hunteri</i>	Myrmicinae		Larvae suspected to regurgitate food to workers	(Went & al. 1972)
<i>Manica rubida</i>	Myrmicinae	Stomodeal trophallaxis		(Dahbi & al. 1999)
<i>Megaponera analis</i>	Ponerinae	Never observed		(Hölldobler & al. 1994)(Megaponera foetens)
<i>Melophorus bagoti</i>	Formicinae	Stomodeal trophallaxis between workers, deduced from the presence of repletes		(Conway 1986)
<i>Messor barbarus</i>	Myrmicinae	Never observed	Larvae fed by with prechewed seeds.	(Le Masne 1953, Parmentier & al. 2020)
<i>Messor capitatus</i>	Myrmicinae	No stomodeal trophallaxis		(Urbani 1991)
<i>Messor semirufus</i>	Myrmicinae		Trophic eggs fed to larvae	(Baroni Urbani 1991)
<i>Messor structor</i>	Myrmicinae	No stomodeal trophallaxis		(Urbani 1991)
<i>Monomorium pharaonis</i>	Myrmicinae	Stomodeal trophallaxis	Queen drinks from larval buccal and anal secretions. Workers drink from larvae buccal secretions	(Chong & al. 2002)
<i>Monomorium rothsteini</i>	Myrmicinae	Stomodeal trophallaxis between workers Stomodeal trophallaxis between workers and sexuals	Larvae regurgitate food to adults Proctodeal trophallaxis: workers intensively licked and imbibed anal secretions of the large final-stage larvae	(Buckley 1982)
<i>Mycetomoellerius turrifex</i>	Myrmicinae	Adult-adult stomodeal trophallaxis		(Murakami 2020)
<i>Mycetophylax sp.</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Moreira & al. 2007)
<i>Mycoccephalus sp.</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Moreira & al. 2007)
<i>Myopopone castanea</i>	Amblyoponinae		Larval hemolymph feeding through small cuts Queens drink larval hemolymph through small cuts	(Ito 2010)
<i>Myrmecia brevinoda</i>	Myrmeciinae	Stomodeal trophallaxis		(Crosland & al. 1988)
<i>Myrmecia gulosa</i>	Myrmeciinae	Never observed		(Crosland & al. 1988)
<i>Myrmecia pyriformis</i>	Myrmeciinae	Adult-adult stomodeal trophallaxis		(Reid & al. 2013)Raid et al. 2013
<i>Myrmecia regularis</i>	Myrmeciinae	Stomodeal trophallaxis	Workers feed larvae through stomodeal trophallaxis	(Whelden & Haskins 1954)
<i>Myrmecia similima</i>	Myrmeciinae	Never observed		(Crosland & al. 1988)
<i>Myrmecia vindex</i>	Myrmeciinae	Never observed	Workers feed larvae through stomodeal trophallaxis	(Whelden & Haskins 1954)
<i>Myrmecina graminicola</i>	Myrmicinae		Workers feed larvae through stomodeal trophallaxis	(Le Masne 1953)

<i>Myrmecina sp. A</i>	Myrmicinae	Ergatoid queens fed only via stomodeal trophallaxis by workers		(Ito 2013)
<i>Myrmecocystus mexicanus</i>	Formicinae	Stomodeal trophallaxis between queens Stomodeal trophallaxis between workers	Larvae are fed trophic eggs Larvae are fed by stomodeal trophallaxis	(Wheeler 1908, Conway 1977, Conway 1980, Conway 1983) (Kronauer & Gadau 2002)Kronauer and Gadau, 2002
<i>Myrmecocystus mimicus</i>	Formicinae	Stomodeal trophallaxis		(Errard & al. 1997)
<i>Myrmica incompleta</i>	Myrmicinae	Stomodeal trophallaxis		
<i>Myrmica rubra</i>	Myrmicinae	Stomodeal trophallaxis	Trophic eggs laid by workers and queens Larvae fed by stomodeal trophallaxis Larvae regurgitate fluid ingested by adult via stomodeal trophallaxis	(Lenoir 1982, Wardlaw & Elmes 1995, Passera & Aron 2005)
<i>Myrmica ruginodis</i>	Myrmicinae	Stomodeal trophallaxis	Trophic eggs laid by workers and queens	(Wardlaw & Elmes 1995, Bos & al. 2011)
<i>Myrmica sabuleti</i>	Myrmicinae	Queen drinks via stomodeal trophallaxis from slave workers. Regurgitation to parasite		(Thomas & Wardlaw 1992, Tinaut & al. 2005)
<i>Myrmica schencki</i>	Myrmicinae	No record	Trophic eggs laid by workers and queens	(Wardlaw & Elmes 1995, Bos & al. 2019)
<i>Myrmica sulcinodis</i>	Myrmicinae		Trophic eggs laid by workers and queens	(Wardlaw & Elmes 1995)
<i>Myrmicaria natalensis eumenoides</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Lengyel 2005)(Myrmicaria eumenoides)
<i>Myrmicaria opaciventris</i>	Myrmicinae			(Dejean & al. 1996)
<i>Myrmoteras barbouri</i>	Formicinae	Stomodeal trophallaxis between workers		(M. W. Moffett 1986)
<i>Myrmoteras iriodum</i>	Formicinae	Stomodeal trophallaxis often observed between adults. Queen also fed by trophallaxis by workers.		(Ito & al. 2017)
<i>Myrmoteras jaitrongi</i>	Formicinae	Stomodeal trophallaxis often observed between adults. Queen also fed by trophallaxis by workers.		(Ito & al. 2017)
<i>Myrmoteras toro</i>	Formicinae	Stomodeal trophallaxis between workers		(M. W. Moffett 1986)
<i>Neoponera apicalis</i>	Ponerinae	Mandibular pseudotrophallaxis No stomodeal trophallaxis observed	Trophic eggs given to the queen, virgin queens or callow worker	(Dietemann & Peeters 2000, Soroker & al. 2003)(Pachycondyla apicalis)
<i>Neoponera obscuricornis</i>	Ponerinae	Mandibular pseudotrophallaxis		(Hölldobler 1985)
<i>Neoponera villosa</i>	Ponerinae	Mandibular pseudotrophallaxis		(Hölldobler 1985)
<i>Nesomyrmex echinatoidis</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Stuart & Moffett 1994)
<i>Nesomyrmex spininodis</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Stuart & Moffett 1994)
<i>Nothomyrmecia macrops</i>	Myrmecinae	No adult -> adult stomodeal trophallaxis	No adult -> larva stomodeal trophallaxis	(Taylor 2014))
<i>Nylanderia fulva</i>	Formicinae	Stomodeal trophallaxis		(Hill 2013)
<i>Ocymyrmex foreli</i>	Ponerinae	Stomodeal trophallaxis between workers and queen Stomodeal trophallaxis between workers		(Forder & Marsh 1986)
<i>Odontomachus affinis</i>	Ponerinae	Stomodeal trophallaxis Mandibular pseudotrophallaxis		(Whelden & Haskins 1954, Dejean & Lachaud 1991)
<i>Odontomachus chelifer</i>	Ponerinae	Mandibular pseudotrophallaxis		(Ávila Núñez & al. 2011)
<i>Odontomachus clarus</i>	Ponerinae		No adult -> larva stomodeal trophallaxis	(Wheeler 1918)
<i>Odontomachus haematoda</i>	Ponerinae	Stomodeal trophallaxis	Queen can feed larvae via stomodeal trophallaxis	(Haskins & Haskins 1950, Whelden & Haskins 1954)
<i>Odontomachus troglodytes</i>	Ponerinae	Mandibular pseudotrophallaxis		(Dejean & Lachaud 1991)
<i>Oecophylla longinoda</i>	Formicinae	Workers feed the queen by stomodeal trophallaxis	Trophic eggs laid by workers and fed to the queen. Workers feed larvae by stomodeal trophallaxis	(Oster & Wilson 1978, Hölldobler & Wilson 1983, Dejean & al. 2016)
<i>Oecophylla smaragdina</i>	Formicinae	Stomodeal trophallaxis	Trophic eggs laid by workers and fed to the queen.	(Hölldobler & Wilson 1983) https://www.alexanderwild.com/Ants/Taxonomic-List-of-Ant-Genera/Oecophylla/i-dmNpqDB/A
<i>Ooceraea biroi</i>	Dorylinae		Never observed	(Ulrich & al. 2016)
<i>Ophthalmopone berthoudi</i>	Ponerinae	Never observed		(Peeters & Crewe 1985)Peeters and Crewe, 1985
<i>Orectognathus versicolor</i>	Myrmicinae	Stomodeal trophallaxis between workers Stomodeal trophallaxis between workers and queen	Workers feed larvae through stomodeal trophallaxis	(Carlin 1981)
<i>Pachycondyla harpax</i>	Ponerinae		No adult -> larva stomodeal trophallaxis	(Wheeler 1918)
<i>Paraponera clavata</i>	Paraponerinae	Mandibular pseudotrophallaxis Suspected stomodeal trophallaxis	Trophic eggs laid by first workers and fed to the larvae. Possible trophallaxis from adults to larvae	(Hölldobler 1985, Davidson 1997, Davidson 1998, Peeters 2017)
<i>Paraponera sp.</i>	Paraponerinae		Workers appear to lick larvae and feed from something	(Wheeler & Wheeler 1952)
<i>Paratrechina longicornis</i>	Formicinae	Stomodeal trophallaxis		(Solis & al. 2009)(Dejean & al. 1996)
<i>Pheidole bicornis</i>	Myrmicinae	Stomodeal trophallaxis	Adults feed larvae by stomodeal trophallaxis	(Fisher & al. 2003)
<i>Pheidole dentata</i>	Myrmicinae	Stomodeal trophallaxis	Workers feed larvae through stomodeal trophallaxis	(Bhatkar & Kloft 1977, Cassill & Tschinkel 1996)
<i>Pheidole megacephala</i>	Myrmicinae	Corporal pseudotrophallaxis Stomodeal trophallaxis		(Dejean & al. 1996, Dejean & al. 2005)
<i>Pheidole morrisii</i>	Myrmicinae	Stomodeal trophallaxis	Workers feed larvae through stomodeal trophallaxis	(Brown & Traniello 1998)
<i>Pheidole pallidula</i>	Myrmicinae		Workers feed larvae through stomodeal trophallaxis	(Le Masne 1953)
<i>Pheidole spadonia</i>	Myrmicinae	Stomodeal trophallaxis	Workers feed larvae through stomodeal trophallaxis Larvae regurgitate to adults	(Cassill & al. 2005)
<i>Philiidris th01</i>	Dolichoderinae	Stomodeal trophallaxis	Stomodeal trophallaxis	(Peeters & Wiwatwitaya 2014)
<i>Plagiolepis pygmaea</i>	Formicinae	Stomodeal trophallaxis deduced from the presence of repletes	Larvae fed via stomodeal trophallaxis	(Le Masne 1953, Bonavita-Cougourdan & Passera 1978)

<i>Plagirolepis xene</i>	Formicinae	Stomodeal trophallaxis between queen and host workers		(Passera & Aron 2005)
<i>Platythyrea conradti</i>	Ponerinae	Corporal pseudotrophallaxis		(Dejean & Suzzoni 1997)
<i>Platythyrea punctata</i>	Ponerinae	No stomodeal trophallaxis observed		(Hartmann & Heinze 2003)
<i>Platythyrea schultzei</i>	Ponerinae	No stomodeal trophallaxis observed	Workers drink from larval tubercule	(Villet & al. 1990, Villet 1991)
<i>Pogonomyrmex badius</i>	Myrmicinae	No trophallaxis	Larvae regurgitate liquid to adults	(Wilson 1987, Tschinkel & Kwapich 2016)
<i>Pogonomyrmex barbatus</i>	Myrmicinae	Rare stomodeal trophallaxis between adults		(Wagner & al. 1998)
<i>Polyergus longicornis</i>	Formicinae	Stomodeal trophallaxis between workers	No larval feeding (slave makers)	(King & Trager 2007)(<i>Polyergus lucidus longicornis</i>)
<i>Polyergus rufescens</i>	Formicinae	Rare stomodeal trophallaxis events between workers		(Beck 1961)
<i>Polyrhachis dives</i>	Formicinae	Stomodeal trophallaxis		(Staab & al. 2017)
<i>Polyrhachis laboriosa</i>	Formicinae	Stomodeal trophallaxis		(Mercier & al. 1997)
<i>Polyrhachis loweryi</i>	Formicinae	Stomodeal trophallaxis		(Maschwitz & al. 2003)
<i>Polyrhachis moesta</i>	Formicinae	Stomodeal trophallaxis between queens		(Sasaki & al. 1996)
<i>Ponera coarctata</i>	Ponerinae	Stomodeal		(Liebig & al. 2010)
<i>Prenolepis imparis</i>	Formicinae	Stomodeal trophallaxis		http://entnemdept.ufl.edu/creatures/misc/ants/Prenolepis_imparis.htm
<i>Prenolepis nitens</i>	Formicinae	Trophallaxis between adults		(Lőrinczi 2016)
<i>Prionopelta amabilis</i>	Amblyoponinae	Never observed		(Hölldobler 1985)
<i>Prionopelta kraepelini</i>	Amblyoponinae		Larvae fed with trophic eggs. Queen is mainly fed from the larval hemolymph she collects by pinching larvae	(Ito & Billen 1998)
<i>Pristomyrmex punctatus</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Sasaki & Tsuji 2003)(<i>Pristomyrmex pungens</i>)
<i>Proatta butteli</i>	Myrmicinae	Stomodeal trophallaxis between workers Stomodeal trophallaxis between workers and queen	Workers feed larvae through stomodeal trophallaxis	(Mark W. Moffett 1986a)
<i>Proceratium croceum</i>	Proceratiinae	No stomodeal trophallaxis observed, but suspected to happen rarely	No stomodeal trophallaxis observed from workers to larvae Larvae suspected to excrete fluid licked by adults	(Le Masne 1953, Whelden & Haskins 1954)
<i>Proceratium itoi</i>	Proceratiinae		Queen drinks hemolymph from larval tubercules	(Masuko 2019)
<i>Proceratium japonicum</i>	Proceratiinae		Larval hemolymph feeding	(Masuko 1986a)
<i>Proceratium watasei</i>	Proceratiinae		Larval hemolymph feeding	(Masuko 1986a)
<i>Procryptocerus scabriusculus</i>	Myrmicinae	Proctodeal trophallaxis. Callows drink rectal secretions from older workers.		(Wheeler 1984)
<i>Proformica epinotalis</i>	Formicinae	Stomodeal trophallaxis between workers, deduced from the presence of repletes		(Marikovsky 1974)
<i>Prolasius advena</i>	Formicinae	Stomodeal trophallaxis	Larval feeding via stomodeal trophallaxis	(Zhao & al. 2013)
<i>Pseudomyrmex elongatus</i>	Pseudomyrmecinae	Stomodeal trophallaxis No proctodeal trophallaxis observed	Adults feed larvae via stomodeal trophallaxis	(Cole 1983)
<i>Pseudomyrmex ferrugineus</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Pseudomyrmex gracilis</i>	Pseudomyrmecinae	Stomodeal trophallaxis		(Mendes & Schmid 2010)
<i>Pseudomyrmex oculatus</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Pseudomyrmex penetrator</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Pseudomyrmex peperi</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Pseudomyrmex satanicus</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Pseudomyrmex tenuis</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Pseudomyrmex termitarius</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Pseudomyrmex venustus</i>	Pseudomyrmecinae	Stomodeal trophallaxis and pseudotrophallaxis		(Dejean & al. 2014)
<i>Rhytidoponera mayri</i>	Ectatomminae	No stomodeal trophallaxis observed. Mandibular pseudotrophallaxis		(Tay & Crozier 2000) (<i>Rhytidoponera</i> sp.12)
<i>Rossomyrmex proformicarum</i>	Formicinae	Stomodeal trophallaxis between workers		(Marikovsky 1974)
<i>Sericomyrmex sp.</i>	Myrmicinae	Stomodeal trophallaxis never observed		(Wheeler 1925)
<i>Solenopsis geminata</i>	Myrmicinae	Stomodeal trophallaxis		(Bhatkar & Kloft 1977)
<i>Solenopsis invicta</i>	Myrmicinae	Stomodeal trophallaxis	Workers feed larvae via stomodeal trophallaxis	(Bhatkar 1979, Cassill & Tschinkel 1995, LeBoeuf & al. 2016)
<i>Solenopsis picta</i>	Myrmicinae		Workers feed larvae by stomodeal trophallaxis	(Cassill & Tschinkel 1996)
<i>Solenopsis richteri</i>	Myrmicinae		Adults feed larvae by stomodeal trophallaxis	(Cupp & O'Neal 1973)
<i>Stenamma lippulum</i>	Myrmicinae		Larvae fed via stomodeal trophallaxis	(Le Masne 1953)
<i>Stigmatomma pallipes</i>	Amblyoponinae	Never observed	Worker -> larvae stomodeal trophallaxis never observed. Workers feed from larval hemolymph by puncturing the larva. Queens can make larvae regurgitate by squeezing them in the neck region, and drink the resulting droplet.	(Haskins & Haskins 1951b, Traniello 1982) (<i>Amblyopone pallipes</i>)
<i>Stigmatomma pluto</i>	Amblyoponinae	Rare stomodeal exchanges between adults	Adult -> larvae stomodeal trophallaxis never observed	(Levieux 1972)(<i>Amblyopone pluto</i>)
<i>Stigmatomma silvestrii</i>	Amblyoponinae	No stomodeal trophallaxis between workers	Queens drink larval hemolymph through small cuts Larvae (1st and 2nd instar) fed exclusively from queen eggs	(Masuko 1986a) (Masuko 2003) (Passera & Aron 2005) (<i>Amblyopone silvestrii</i>)

<i>Stigmatomma silvestrii</i>	Amblyoponinae		Adults feed from larval hemolymph by puncturing larvae	(Esteves & Fisher 2016)
<i>Streblognathus aethiopicus</i>	Ponerinae	Never observed	Adults feed larvae via stomodeal trophallaxis	(Ware & al. 1990)
<i>Strumigenys louisianae</i>	Ponerinae	Stomodeal trophallaxis		(Creighton 1937)
<i>Strumigenys membranifera</i>	Ponerinae	never observed	Never observed	(Wilson 1953)
<i>Strumigenys rostrata</i>	Ponerinae	Never observed	Workers were never observed feeding larvae via trophallaxis	(Wilson 1953, Wheeler & Wheeler 1954)
<i>Tapinoma erraticum</i>	Dolichoderinae	Stomodeal trophallaxis	Use proctodeal trophallaxis to feed larvae	(Wheeler & Wheeler 1966, Lenoir 1979)
<i>Tapinoma melanocephalum</i>	Dolichoderinae	Stomodeal trophallaxis		(Jesus & al. 2010)
<i>Tapinoma sessile</i>	Dolichoderinae	Stomodeal trophallaxis		(Buczowski & Bennett 2009)
<i>Technomyrmex albipes</i>	Dolichoderinae	Stomodeal trophallaxis debated	Trophic eggs fed to sexuals and larvae. Trophic eggs laid by all females of the colony Debated Adult-larvae stomodeal trophallaxis	(Yamauchi & al. 1991, Warner 2003)
<i>Temnothorax albipennis</i>	Myrmicinae	Stomodeal trophallaxis		(Sendova-Franks & al. 2010)
<i>Temnothorax ambiguus</i>	Myrmicinae	Stomodeal trophallaxis Proctodeal trophallaxis with slave maker species Temnothorax americanus queens and workers.		(Stuart 1981a)
<i>Temnothorax americanus</i>	Myrmicinae	Proctodeal trophallaxis with host species Temnothorax ambiguus and Temnothorax longispinosus. Hosts drink from queen and workers slavemakers.		(Stuart 1981a)(Harpagoxenus americanus)
<i>Temnothorax andrei</i>	Myrmicinae		Larvae fed via stomodeal trophallaxis	(Le Masne 1953)
<i>Temnothorax longispinosus</i>	Myrmicinae	Proctodeal trophallaxis with slave maker species Harpagoxenus americanus queens and workers.	Larvae fed by stomodeal trophallaxis. Proctodeal trophallaxis: Larvae rarely fed by anal droplets from workers	(Stuart 1981b, Herbers & Cunningham 1983)
<i>Temnothorax muellerianus</i>	Myrmicinae	Stomodeal trophallaxis		(Heinze 2010)
<i>Temnothorax nylanderi</i>	Myrmicinae	Stomodeal trophallaxis	Larvae fed by stomodeal trophallaxis.	(Stroeymeyt & al. 2017)
<i>Temnothorax racovitzai</i>	Myrmicinae		Larvae fed via stomodeal trophallaxis	(Le Masne 1953)
<i>Temnothorax recedens</i>	Myrmicinae		Larvae fed via stomodeal trophallaxis	(Le Masne 1953)
<i>Temnothorax rugatulus</i>	Myrmicinae	Stomodeal trophallaxis	Trophic eggs laid by specialized workers	(Charbonneau & al. 2015, Charbonneau & al. 2017)
<i>Tetramorium bicarinatum</i>	Myrmicinae	Stomodeal trophallaxis		(Astruc & al. 2001)
<i>tetramorium immigrans</i>	Myrmicinae	Stomodeal trophallaxis		(Barrett & al. 2020)
<i>Tetramorium tsushimae</i>	Myrmicinae	Stomodeal trophallaxis between workers		(Hayashi & al. 2017)
<i>Veromessor pergandei</i>	Myrmicinae		Larvae regurgitate liquid to adults	(Tschinkel & Kwapich 2016)
<i>Vollenhovia nipponica</i>	Myrmicinae	Proctodeal trophallaxis never observed between queens Stomodeal trophallaxis with Vollenhovia emeryi		(Satoh & Ohkawara 2008, Ohkawara & Aonuma 2016)Satoh and Ohkawara, 2008 Ohkawara and Aonuma, 2016
<i>Wasmannia auropunctata</i>	Myrmicinae	Stomodeal trophallaxis		(Montgomery & al. 2015)
<i>Xenomymex floridanus</i>	Myrmicinae	Stomodeal trophallaxis No proctodeal trophallaxis observed	Adults feed larvae via stomodeal trophallaxis	(Cole 1983)

Alpert, G.D. & Akre, R.D. 1973: Distribution, abundance, and behavior of the inquiline ant *Leptothorax diversipilosus*. – *Annals of the Entomological Society of America* 66: 753-760.

Gobin, Billen and Peeters. 1999: Policing behaviour towards virgin egg layers in a polygynous Ponerine ant. – *Animal Behaviour* 58(2):1117-1122

Astruc, C., Malosse, C. & Errard, C. 2001: Lack of Intraspecific Aggression in the Ant *Tetramorium bicarinatum*: A Chemical Hypothesis. – *Journal of Chemical Ecology* 27: 1229-1248.

Aubert, A. & Richard, F.-J. 2008: Social management of LPS-induced inflammation in *Formica polyctena* ants. – *Brain, Behavior, and Immunity* 22: 833-837.

Ávila Núñez, J.L., Naya, M., Calcagno-Pissarelli, M.P. & Otero, L.D. 2011: Behaviour of *Odontomachus chelifer* (Latreille) (Formicidae: Ponerinae) feeding on sugary liquids. – *Journal of Insect Behavior* 24: 220-229.

Avila, S. d', Andrade, F.R., Prezoto, F. & Del-Claro, K. 2005: Activity schedule and foraging in *Cephalotes atratus* (Hymenoptera: Formicidae, Myrmicinae). – *Sociobiology* 45: 105-118.

Ayre, G.L. 1963: Feeding behaviour and digestion in *Camponotus herculeanus* (L.) (Hymenoptera: Formicidae). – *Entomologia Experimentalis et Applicata* 6: 165-170.

Barandica, J.M., López, F., Martínez, M.D. & Ortuño, V.M. 2008: The larvae of *Leptanilla charonea* and *Leptanilla zabalosi* (Hymenoptera, Formicidae). – *Deutsche Entomologische Zeitschrift* 41: 147-153.

Baroni Urbani, C. 1991: Indiscriminate oophagy by ant larvae: an explanation for brood serial organization? – *Insectes Sociaux* 38: 229-239.

Barrett, M., Caponera, V., McNair, C. & O'Donnell, S. 2020: Potential for use of erythritol as a socially transferrable ingested insecticide for ants (Hymenoptera: Formicidae). – *Journal of Economic Entomology* 113: 1382-1388.

Beck, H. 1961: Vergleichende Untersuchungen über einige Verhaltensweisen von *Polyergus rufescens* Latr. und *Raptiformica sanguinea* Latr. – *Insectes Sociaux* 8: 1-11.

Bhatkar, A.P. 1979: Evidence of intercolonial food exchange in fire ants and other Myrmicinae, using radioactive phosphorus. – *Experientia* 35: 1172-1173.

Bhatkar, A.P. & Kloft, W.J. 1977: Evidence, using radioactive phosphorus, of interspecific food exchange in ants. – *Nature* 265: 140-142.

Bles, O., Deneubourg, J.-L. & Nicolis, S.C. 2018: Food dissemination in ants: robustness of the trophallactic network against resource quality. – *The Journal of Experimental Biology* 221: jeb192492.

Bonavita-Cougourdan, A. & Passera, L. 1978: Étude comparative au moyen d'or radio-actif de l'alimentation des larves d'ouvrières et des larves de reine chez la Fourmi *Plagiopsis pygmaea* Latr. – *Insectes Sociaux* 25: 275-287.

Bos, N., Grinsted, L. & Holman, L. 2011: Wax on, wax off: nest soil facilitates indirect transfer of recognition cues between ant nestmates. – *PLoS ONE* 6: e19435.

Bos, N., Kankaanpää-Kukkonen, V., Freitag, D., Stucki, D. & Sundström, L. 2019: Comparison of Twelve Ant Species and Their Susceptibility to Fungal Infection. – *Insects* 10: 271.

Boulay, R., Katzav-Gozansky, T., Hefetz, A. & Lenoir, A. 2004: Odour convergence and tolerance between nestmates through trophallaxis and grooming in the ant *Camponotus fellah* (Dalla Torre). – *Insectes Sociaux* 51: 55-61.

Boulay, R. & Lenoir, A. 2001: Social isolation of mature workers affects nestmate recognition in the ant *Camponotus fellah*. – *Behavioural Processes* 55: 67-73.

Boulay, R., Soroker, V., Godzinska, E.J., Hefetz, A. & Lenoir, A. 2000: Octopamine reverses social deprivation effects. – *The Journal of Experimental Biology* 203: 513-520.

Bourke, A.F.G. 1991: Queen behaviour, reproduction and egg cannibalism in multiple-queen colonies of the ant *Leptothorax acervorum*. – *Animal Behaviour* 42: 295-310.

Brandão, C.R.F., Diniz, J.L.M., Silva, P.R., Albuquerque, N.L. & Silvestre, R. 2001: The first case of intranidal phragmiosis in ants. The ergatoid queen of *Blepharidatta conops* (Formicidae, Myrmicinae) blocks the entrance of the brood chamber. – *Insectes Sociaux* 48: 251-258.

Brandão, C.R.F. & Paiva, R.V.S. 1989: Estudo sobre a organizacao social do *Ectatomma permagnum* Forel, 1908 (Hymenoptera: Formicidae). – *Revista Brasileira de Biologia* 49: 783-792.

Brown, J.J. & Traniello, J.F.A. 1998: Regulation of brood-care behavior in the dimorphic castes of the ant *Pheidole morrisi* (Hymenoptera: Formicidae): effects of caste ratio, colony size, and colony needs. – *Journal of Insect Behavior* 11: 209-219.

Buckley, R.C. ed. 1982: Ant-plant interactions in Australia. – Springer Netherlands, Dordrecht.

Buczowski, G. & Bennett, G. 2009: The influence of forager number and colony size on food distribution in the odorous house ant, *Tapinoma sessile*. – *Insectes Sociaux* 56: 185-192.

Buffin, A., Maillieux, A.-C., Detrain, C. & Deneubourg, J.L. 2011: Trophallaxis in *Lasius niger*: a variable frequency and constant duration for three food types. – *Insectes Sociaux* 58: 177-183.

Camargo, R.S., Forti, L.C., Lopes, J.F.S., Andrade, A.P.P., Raetano, C. & Mendonca, C.G. 2006: The role of workers in transferring queen substances and the differences between worker castes in the leaf-cutting ant, *Acromyrmex subterraneus subterraneus*. – *Sociobiology* 48.

Carlin, N.F. 1981: Polymorphism and division of labor in the *Dacine* ant *Orectognathus versicolor* (Hymenoptera: Formicidae). – *Psyche: A Journal of Entomology* 88: 231-244.

Cassill, D.L., Butler, J., Vinson, S.B. & Wheeler, D.E. 2005: Cooperation during prey digestion between workers and larvae in the ant, *Pheidole spadonia*. – *Insectes Sociaux* 52: 339-343.

Cassill, D.L. & Tschinkel, W.R. 1996: A duration constant for worker-to-larva trophallaxis in fire ants. – *Insectes Sociaux* 43: 149-166.

Cassill, D.L. & Tschinkel, W.R. 1995: Allocation of liquid food to larvae via trophallaxis in colonies of the fire ant, *Solenopsis invicta*. – *Animal Behaviour* 50: 801-813.

Chapuisat, M., Bernasconi, C., Hoehn, S. & Reuter, M. 2005: Nestmate recognition in the unicolonial ant *Formica paralugubris*. – *Behavioral Ecology* 16: 15-19.

Charbonneau, D., Hillis, N. & Dornhaus, A. 2015: 'Lazy' in nature: ant colony time budgets show high 'inactivity' in the field as well as in the lab. – *Insectes Sociaux* 62: 31-35.

- Charbonneau, D., Poff, C., Nguyen, H., Shin, M.C., Kierstead, K. & Dornhaus, A. 2017: Who are the "lazy" ants? The function of inactivity in social insects and a possible role of constraint: inactive ants are corpulent and may be young and/or selfish. – *Integrative and Comparative Biology* 57: 649-667.
- Chong, A., Chong, N.-L., Yap, H.-H. & Lee, C.-Y. 2002: Effects of starvation on nutrient distribution in the pharaoh ant, *Monomorium pharaonis* (Hymenoptera: Formicidae) workers and various larval stages. – *Proceedings of the Fourth International Conference on Urban Pests*: 8.
- Cole, B.J. 1983: Assembly of mangrove ant communities: colonization abilities. – *Journal of Animal Ecology* 52: 349-355.
- Conway, J.R. 1977: Analysis of Clear and Dark Amber Repletes of the Honey Ant, *Myrmecocystus mexicanus hortideorum* 1. – *Annals of the Entomological Society of America* 70: 367-369.
- Conway, J.R. 1983: Nest architecture and population of the honey ant, *Myrmecocystus mexicanus* Wesmael (Formicidae), in Colorado. – *The Southwestern Naturalist* 28: 21-31.
- Conway, J.R. 1986: The biology of honey ants. In: *Honey Ants*. – pp. 335-343.
- Conway, J.R. 1980: The seasonal occurrence of sexual brood and the pre- and post-nuptial behavior of the honey ant, *Myrmecocystus mexicanus* Wesmael, in Colorado. – *Journal of the New York Entomological Society* 88: 7-14.
- Cook, S.C. & Davidson, D.W. 2006: Nutritional and functional biology of exudate-feeding ants. – *Entomologia Experimentalis et Applicata* 118: 1-10.
- Corbara, B., Lachaud, J.-P. & Fresneau, D. 2010: Individual variability, social structure and division of labour in the ponerine ant *Ectatomma ruidum* Roger (Hymenoptera, Formicidae). – *Ethology* 82: 89-100.
- Creighton, W.S. 1937: Notes on the Habits of *Strumigenys*. – *Psyche: A Journal of Entomology* 44.
- Creighton, W.S. & Snelling, R.R. 1974: Notes on the behavior of three species of *Cardiocondyla* in the United States (Hymenoptera: Formicidae). – *Journal of the New York Entomological Society* 82: 82-92.
- Crosland, M.W.J., Crozier, R.H. & Jefferison, E. 1988: Aspects of the biology of the primitive ant genus *Myrmecia* F. (Hymenoptera: Formicidae). – *Australian Journal of Entomology* 27: 305-309.
- Cunningham, C.A. 2019: What's all the yacking about? Discovering if *Ectatomma ruidum* uses trophallaxis. – PhD thesis, Arizona State University
- Cupp, E.W. & O'Neal, J. 1973: The Morphogenetic Effects of Two Juvenile Hormone Analogues on Larvae of Imported Fire Ants 1. – *Environmental Entomology* 2: 191-194.
- Dahbi, A., Hefetz, A., Cerdá, X. & Lenoir, A. 1999: Trophallaxis mediates uniformity of colony odor in *Cataglyphis iberica* ants (Hymenoptera, Formicidae). – *Journal of Insect Behavior* 12: 559-567.
- Davidson, D.W. 1998: Resource discovery versus resource domination in ants: a functional mechanism for breaking the trade-off. – *Ecological Entomology* 23: 484-490.
- Davidson, D.W. 1997: The role of resource imbalances in the evolutionary ecology of tropical arboreal ants. – *Biological Journal of the Linnean Society* 61: 153-181.
- Davies, S.J., Villet, M.H., Blomfield, T.M. & Crewe, R.M. 1994: Reproduction and division of labour in *Leptogenys schwabi* Forel (Hymenoptera Formicidae), a polygynous, queenless ponerine ant. – *Ethology Ecology and Evolution* 6: 507-517.
- Dejean, A., Labrière, N., Touchard, A., Petitclerc, F. & Roux, O. 2014: Nesting habits shape feeding preferences and predatory behavior in an ant genus. – *Naturwissenschaften* 101: 323-330.
- Dejean, A. & Lachaud, J.-P. 1991: Food Sharing in *Odonotomachus troglodytes* (Santschi): A Behavioral Intermediate Stage in the Evolution of Social Food Exchange in Ants. – *Anales de Biologia* 17: 53-61.
- Dejean, A., Le Breton, J., Suzzoni, J.P., Orivel, J. & Saux-Moreau, C. 2005: Influence of interspecific competition on the recruitment behavior and liquid food transport in the tramp ant species *Pheidole megacephala*. – *Naturwissenschaften* 92: 324-327.
- Dejean, A., Ngnegueu, P.R. & Bourgoïn, T. 1996: Trophobiosis between ants and *Peregrinus maidis* (Hemiptera, Fulgoromorpha, Delphacidae). – *Sociobiology* 28: 111-120.
- Dejean, A., Orivel, J., Azémir, F., Héralut, B. & Corbara, B. 2016: A cuckoo-like parasitic moth leads African weaver ant colonies to their ruin. – *Scientific Reports* 6: 23778.
- Dejean, A. & Suzzoni, J.P. 1997: Surface tension strengths in the service of a Ponerine ant: a new kind of nectar transport. – *Naturwissenschaften* 84: 76-79.
- Dietemann, V. & Peeters, C. 2000: Queen influence on the shift from trophic to reproductive eggs laid by workers of the ponerine ant *Pachycondyla apicalis*. – *Insectes Sociaux* 47: 223-228.
- Dijkstra, M.B., Nash, D.R. & Boomsma, J.J. 2005: Self-restraint and sterility in workers of *Acromyrmex* and *Atta* leafcutter ants. – *Insectes Sociaux* 52: 67-76.
- Diniz, J.L.M., Brandão, C.R.F. & Yamamoto, C.I. 1998: Biology of *Blepharidatta* ants, the sister group of the Attini: a possible origin of fungus-ant symbiosis. – *Naturwissenschaften* 85: 270-274.
- Echols, H.W. 1966: Compatibility of Separate Nests of Texas Leaf-Cutting Ants. – *Journal of Economic Entomology* 59: 1299-1300.
- Epps, M.J. & Penick, C.A. 2018: Facultative mushroom feeding by common woodland ants (Formicidae, Aphaenogaster spp.). – *Food Webs* 14: 9-13.
- Errard, C., Fresneau, D., Heinze, J., Francoeur, A. & Lenoir, A. 1997: Social Organization in the guest-ant *Formicoxenus provancheri*. – *Ethology* 103: 149-159.
- Esteves, F. & Fisher, B. 2016: Taxonomic revision of *Stigmatomma* Roger (Hymenoptera: Formicidae) in the Malagasy region. – *Biodiversity Data Journal* 4: e8032.
- Fisher, R.C., Wanek, W., Richter, A. & Mayer, V. 2003: Do Ants Feed Plants? A 15N Labelling Study of Nitrogen Fluxes from Ants to Plants in the Mutualism of *Pheidole* and *Piper*. – *Journal of Ecology* 91: 126-134.
- Forder, J.C. & Marsh, A.C. 1986: Social organization and reproduction in *Ocymyrmex forelis* (Formicidae: Myrmicinae). – *Insectes Sociaux* 36: 106-115.
- Fujioka, H. & Okada, Y. 2019: Liquid exchange via stomodeal trophallaxis in the Ponerine ant *Diacamma* sp. from Japan. – *Journal of Ethology* 37: 371-375.
- Galle, R., Kanizsai, O., Acs, V. & Molnár, B. 2014: Functioning of ecotones — spiders and ants of edges between native and non-native forest plantations. – *Polish Journal of Ecology* 62: 815-820.
- Gobin, B. & Ito, F. 2000: Queens and major workers of *Acanthomyrmex ferox* redistribute nutrients with trophic eggs. – *Naturwissenschaften* 87: 323-326.
- Gobin, B., Peeters, C. & Billen, J. 1998: Production of trophic eggs by virgin workers in the ponerine ant *Gnamptogenys menadensis*. – *Physiological Entomology* 23: 329-336.
- Gordon, D.M. 2012: The Dynamics of Foraging Trails in the Tropical Arboreal Ant *Cephalotes goniodontus* Heil, M. – *PLoS ONE* 7: e50472.
- Gösswald, K. & Klotz, W. 1963: Tracer experiments on food exchange in ants and termites. In: *Radiation and radioisotopes applied to insects of agricultural importance*. – pp. 25-42.
- Hamilton, C., Lejeune, B.T. & Rosengaus, R.B. 2011: Trophallaxis and prophylaxis: social immunity in the carpenter ant *Camponotus pennsylvanicus*. – *Biology Letters* 7: 89-92.
- Hartmann, A. & Heinze, J. 2003: Lay eggs, live longer: division of labor and lifespan in a clonal ant species. – *Evolution* 57: 2424-2429.
- Hasegawa, E. 1993: Nest defense and early production of the major workers in the dimorphic ant *Colobopsis nipponicus* (Wheeler) (Hymenoptera: Formicidae). – *Behavioral Ecology and Sociobiology* 33.
- Hashimoto, Y., Yamauchi, K. & Hasegawa, E. 1995: Unique habits of stomodeal trophallaxis in the ponerine ant *Hypoponera* sp. – *Insectes Sociaux* 42: 137-144.
- Haskins, C.P. 1941: Note on the Method of Colony Foundation of the Ponerine Ant *Bothroponera Soror* Emery. – *Journal of the New York Entomological Society* 49: 211-216.
- Haskins, C.P. 1931: Notes on the biology and social life of *Euponera gilva* Roger var. *harnedi* M. R. Smith. – *Journal of the New York Entomological Society*. 39: 507-521.
- Haskins, C.P. & Haskins, E.F. 1951a: Note on the method of colony foundation of the Ponerine ant *Amblyopone australis* Erichson. – *American Midland Naturalist* 45: 432.
- Haskins, C.P. & Haskins, E.F. 1951b: Note on the Method of Colony Foundation of the Ponerine Ant *Amblyopone australis* Erichson. – *American Midland Naturalist* 45: 432.
- Haskins, C.P. & Haskins, E.F. 1950: Note on the method of colony foundation of the Ponerine ant *Brachyponera* (*Euponera*) *lutea* Mayr. – *Psyche: A Journal of Entomology* 57: 1-9.
- Hayashi, M., Hojo, M.K., Nomura, M. & Tsuji, K. 2017: Social transmission of information about a mutualist via trophallaxis in ant colonies. – *Proceedings of the Royal Society B: Biological Sciences* 284: 20171367.
- Heinze, J. 2010: Reproductive hierarchies among workers of the slave-making ant, *Chalepoxenus muellerianus*. – *Ethology* 102: 117-127.
- Heinze, J., Cover, S.P. & Hölldobler, B. 1995: Neither Worker, Nor Queen: An Ant Caste Specialized in the Production of Unfertilized Eggs. – *Psyche: A Journal of Entomology* 102: 173-185.
- Herbers, J.M. & Cunningham, M. 1983: Social organization in *Leptothorax longispinosus* Mayr. – *Animal Behaviour* 31.
- Hill, S.K. 2013: Foraging strategies and aggression patterns of *Nylanderia fulva* (Mayr) (Hymenoptera: Formicidae) in north central Florida. – PhD thesis, University of Florida, United States
- Hoey-Chamberlain, R. 2012: Food preference, survivorship, and intraspecific interactions of velvety tree ants. – PhD thesis, University of California Riverside
- Hoey-Chamberlain, R., Rust, M.K. & Klotz, J.H. 2013: A review of the biology, ecology and behavior of velvety tree ants of North America. – *Sociobiology* 60: 1-10.
- Hoffmann, B.D. 2014: Quantification of supercolonial traits in the yellow crazy ant, *Anoplolepis gracilipes*. – *Journal of Insect Science* 14.
- Hölldobler, B. 1985: Liquid food transmission and antennation signals in Ponerine ants. – *Israel Journal of Entomology* XIX: 89-99.
- Hölldobler, B. & Carlin, N.F. 1985: Colony founding, queen dominance and oligogyny in the Australian meat ant *Iridomyrmex purpureus*. – *Behavioral Ecology and Sociobiology* 18: 45-58.
- Hölldobler, B. & Kwapich, C.L. 2017: *Amphotis marginata* (Coleoptera: Nitidulidae) a highwayman of the ant *Lasius fuliginosus* Nascimento, F.S. – *PLoS ONE* 12: e0180847.
- Hölldobler, B., Peeters, C. & Obermayer, M. 1994: Exocrine glands and the attractiveness of the ergatoid queen in the ponerine ant *Megaponera foetens*. – *Insectes Sociaux* 41: 63-72.
- Hölldobler, B. & Wilson, E.O. 1985: Ecology and behaviour of the neotropical cryptobiotic ant *Basicoeros manni* (Hymenoptera: Formicidae: Biserotini). – *Insectes Sociaux* 33: 70-84.
- Hölldobler, B. & Wilson, E.O. 1983: Queen control in colonies of weaver ants (Hymenoptera: Formicidae). – *Annals of the Entomological Society of America* 76: 235-238.
- Hölldobler, B. & Wilson, E.O. 1986: Soil-binding pilosity and camouflage in ants of the tribes *Basicoerotini* and *Stegomyrmecini* (Hymenoptera, Formicidae). – *Zoomorphology* 106: 12-20.
- Hölldobler, B. & Wilson, E.O. 2009: The superorganism: the beauty, elegance, and strangeness of insect societies. 1st ed. – W.W. Norton, New York, 522 pp.
- Hunter, A.N. & Mathis, A. 2020: Behavior in Transition: Recovery of Behavior by an Obligate Parasitic Ant (*Formica subintegra*) Following Host Removal. – *Journal of Insect Behavior* 33: 48-58.
- Ito, F. 2013: Evaluation of the benefits of a myrmecophilous oribatid mite, *Aribates javensis*, to a myrmecine ant, *Myrmecina* sp. – *Experimental and Applied Acarology* 61: 79-85.
- Ito, F. 2010: Notes on the biology of the oriental *Amblyopone* ant *Myopopone castanea*: queen-worker dimorphism, worker polymorphism and larval hemolymph feeding by workers (Hymenoptera: Formicidae). – *Entomological Science* 13: 199-204.
- Ito, F. 2001: Specialized predation on arthropod eggs in a Myrmecine ant, *Calyptomyrmex* sp. (Hymenoptera:Formicidae), in the oriental tropic. – *Tropics* 10: 405-407.
- Ito, F. & Billen, J. 1998: Larval hemolymph feeding and oophagy: behaviour of queen and workers in the primitive Ponerine ant *Prionopelta kraepelini* (Hymenoptera: Formicidae). – *Belgian Journal of Zoology* 128: 201-209.
- Ito, F., Miyazaki, S., Hashim, R. & Billen, J. 2017: Colony composition and behavioral characteristics of *Myrmoteras iriodum* and *M. jaitrongi* in Ulu Gombak, Peninsular Malaysia (Hymenoptera: Formicidae). – *Asian Myrmecology* 9.
- Jesus, C.M.D., Fox, E.G.P., Solis, D.R., Yabuki, A.T., Rossi, M.L. & Bueno, O.C. 2010: Description of the Larvae of *Tapinoma melanocephalum* (Hymenoptera: Formicidae). – *Florida Entomologist* 93: 243-247.
- Josens, R., Mattiacci, A., Lois-Milevich, J. & Giacometti, A. 2016: Food information acquired socially overrides individual food assessment in ants. – *Behavioral Ecology and Sociobiology* 70: 2127-2138.
- Keefer, T.C. 2016: Biology, diet preferences, and control of the dark rover ant *Brachyomyrmex patagonicus* (Hymenoptera: Formicidae) in Texas. – PhD thesis, Texas A&M University, Texas
- King, J.R. & Trager, J.C. 2007: Natural History of the Slave Making Ant, *Polyergus lucidus*. *Sensu lato* in Northern Florida and Its Three *Formica pallidiflava* Group Hosts. – *Journal of Insect Science* 7: 1-14.
- Köhler, A. 2012: Nematodes in the heads of ants associated with sap flux and rotten wood. – *Nematology* 14: 191-198.
- Konrad, M., Vyleta, M.L., Theis, F.J., Stock, M., Tragust, S., Klatt, M., Drescher, V., Marr, C., Ugelvig, L.V. & Cremer, S. 2012: Social transfer of pathogenic fungus promotes active immunisation in ant colonies *Schneider, D.S.* – *PLoS Biology* 10: e1001300.
- Kronauer, D.J.C. & Gadau, J. 2002: Isolation of polymorphic microsatellite markers in the new world honey ant *Myrmecocystus mimicus*. – *Molecular Ecology Notes* 2: 540-541.
- Lanan, M.C., Rodrigues, P.A.P., Agellon, A., Jansma, P. & Wheeler, D.E. 2016: A bacterial filter protects and structures the gut microbiome of an insect. – *The ISME Journal* 10: 1866-1876.
- Le Masne, G. 1952: Les échanges alimentaires entre adultes chez la fourmi *Ponera eduardi* Forel. – *Comptes Rendus de l'Académie des Sciences* 235: 1549-1551.

- Le Masne, G. 1948: Observations on the male ergatoides of the ant *Ponera eduardi* Forel. – *Comptes Rendus Hebdomadaires des Seances de l'Academie des Sciences* 226: 2009-2011.
- Le Masne, G. 1953: Observations sur les relations entre le couvain et les adultes chez les fourmis. – *Annales des sciences naturelles: Zoologie et biologie animale* 15: 1-56.
- LeBoeuf, A.C., Waridel, P., Brent, C.S., Gonçalves, A.N., Menin, L., Ortiz, D., Riba-Grognuz, O., Koto, A., Soares, Z.G., Privman, E., Miska, E.A., Benton, R. & Keller, L. 2016: Oral transfer of chemical cues, growth proteins and hormones in social insects. – *eLife* 5: e20375.
- Lee, C.-C., Nakao, H., Tseng, S.-P., Hsu, H.-W., Lin, G.-L., Tay, J.-W., Billen, J., Ito, F., Lee, C.-Y., Lin, C.-C. & Yang, C.-C. 2017: Worker reproduction of the invasive yellow crazy ant *Anoplolepis gracilipes*. – *Frontiers in Zoology* 14: 24.
- Lengyel, F. 2005: Factors regulating signal composition and task allocation in colonies of the ant *Myrmica eumenoides*. – PhD thesis, University of Bayreuth, Bayreuth
- Lenoir, A. 1982: An informational analysis of antennal communication during trophallaxis in the ant *Myrmica rubra* L. – *Behavioural Processes* 7: 27-35.
- Lenoir, A. 1979: Feeding behaviour in young societies of the ant *Tapinoma erraticum* L.: trophallaxis and polyethism. – *Insectes Sociaux* 26: 19-37.
- Lenoir, A., Cuisset, D. & Hefetz, A. 2001: Effects of social isolation on hydrocarbon pattern and nestmate recognition in the ant *Aphaenogaster senilis* (Hymenoptera, Formicidae). – *Insectes Sociaux* 48: 101-109.
- Levieux, J. 1972: Feeding behavior and relations between individuals in a primitive ant, *Amblyopone pluto* Gotwald et Lievieux. – *Comptes Rendus Hebdomadaires Des Seances De l'Academie Des Sciences. Serie D: Sciences Naturelles* 275: 483-485.
- Liebig, J., Heinze, J. & Hölldobler, B. 2010: Trophallaxis and aggression in the ponerine ant, *Ponera coarctata*: implications for the evolution of liquid food exchange in the Hymenoptera. – *Ethology* 103: 707-722.
- Lin, C.-C., Chang, T.-W., Chen, H.-W., Shih, C.-H. & Hsu, P.-C. 2017: Development of liquid bait with unique bait station for control of *Dolichoderus thoracicus* (Hymenoptera: Formicidae). – *Journal of Economic Entomology* 110: 1685-1692.
- Locher, G. de A., Giannotti, E. & Tofolo, V.C. 2009: Brood care behavior in *Ectatomma brunneum* (Hymenoptera, Formicidae, Ectatomminae) under laboratory conditions. – *Sociobiology* 54: 573-587.
- Lopes, J.F.S., Camargo, R. da S., Forti, L.C. & Hughes, W.O.H. 2017: The trade-off between the transmission of chemical cues and parasites: behavioral interactions between leaf-cutting ant workers of different age classes. – *Revista Brasileira de Entomologia* 61: 69-73.
- Lopes, J.F.S., Hughes, W.O.H., Camargo, R.S. & Forti, L.C. 2005: Larval isolation and brood care in *Acromyrmex* leaf-cutting ants. – *Insectes Sociaux* 52: 333-338.
- Lőrinczi, G. 2014: Some notes on the tool-using behaviour of the ant, *Aphaenogaster subterranea* (Hymenoptera: Formicidae). – *Tiscia* 40: 17-24.
- Lőrinczi, G. 2016: Winter activity of the European false honeypot ant, *Prenolepis nitens* (Mayr, 1853). – *Insectes Sociaux* 63: 193-197.
- Maák, I., Lőrinczi, G., Le Quinquis, P., Módra, G., Bovet, D., Call, J. & Ertorre, P. d' 2017: Tool selection during foraging in two species of funnel ants. – *Animal Behaviour* 123: 207-216.
- Malato, G., Kermarrec, A. & Troup, J.M. 1977: Données nouvelles sur l'invasion de la Guadeloupe par *Acromyrmex octospinosus* Reich, (Formicidae, Attini). – Quatorzième Congrès de la Société Intercaraibe pour les Plantes Alimentaires.
- Marikovskiy, P.I. 1974: The biology of the ant *Rossomyrmex proformicarum* K. W. Arnoldi (1928). – *Insectes Sociaux* 21: 301-308.
- Maschwitz, U., Dorow, W. & Buschinger, A. 2000: Social parasitism involving ants of different subfamilies: *Polyrhachis lama* (Formicinae) an obligatory inquiline of *Diacamma* sp. (Ponerinae) in Java. – *Insectes Sociaux* 47: 27-35.
- Maschwitz, U., Go, C., Dorow, W.H.O., Buschinger, A. & Kohout, R.J. 2003: *Polyrhachis loweryi* (Formicinae): a guest ant parasitizing *Rhytidoponera* sp. (Ponerinae) in Queensland, Australia. – *Insectes Sociaux* 50: 69-76.
- Maschwitz, U. & Moog, J. 2000: Communal peeing: a new mode of food control in ants. – *Naturwissenschaften* 87: 563-565.
- Masuko, K. 1986a: Larval hemolymph feeding: a nondestructive parental cannibalism in the primitive ant *Amblyopone silvestrii* Wheeler (Hymenoptera: Formicidae). – *Behavioral Ecology and Sociobiology* 19: 249-255.
- Masuko, K. 1986b: Larval hemolymph feeding: a nondestructive parental cannibalism in the primitive ant *Amblyopone silvestrii* Wheeler (Hymenoptera: Formicidae). – *Behavioral Ecology and Sociobiology* 19: 249-255.
- Masuko, K. 2019: Larval hemolymph feeding and hemolymph taps in the ant *Proceratium itoi* (Hymenoptera: Formicidae). – *Myrmecological News* 29: 21-34.
- Masuko, K. 2003: Larval oophagy in the ant *Amblyopone silvestrii* (Hymenoptera, Formicidae). – *Insectes Sociaux* 50: 317-322.
- Mc Cabe, S., Farina, W.M. & Josens, R.B. 2006: Antennation of nectar-receivers encodes colony needs and food-source profitability in the ant *Camponotus mus*. – *Insectes Sociaux* 53: 356-361.
- McClenahan, J.L., Melbourne, B.A., Cunningham, S.A. & Davies, K.F. 2016: Differential and delayed response of two ant species to habitat fragmentation via the introduction of a pine matrix: Ant species response to habitat fragmentation. – *Ecological Entomology* 41: 554-561.
- Mendes, L. & Schmid, V. 2010: Description of *Allograssiella floridana* gen. nov., spec. nov. from the southern United States living with *Pseudomyrmex* ants. – *Spixiana* 33: 49-54.
- Mercier, J.L., Lenoir, A. & Dejean, A. 1997: Ritualised versus aggressive behaviours displayed by *Polyrhachis laboriosa* (F. Smith) during intraspecific competition. – *Behavioural Processes* 41: 39-50.
- Moffett, Mark W. 1986a: Behavior of the group-predatory ant *Poatta butleri* (Hymenoptera: Formicidae): an old world relative of the Attine ants. – *Insectes Sociaux* 33: 444-457.
- Moffett, M.W. 1985: Behavioral notes on the asiatic harvesting ants *Acanthomyrmex notabilis* and *A. ferox*. – *Psyche: A Journal of Entomology* 92: 165-179.
- Moffett, Mark W. 1986b: Notes on the behavior of the dimorphic ant *Oligomyrmex overbecki* (Hymenoptera: Formicidae). – *Psyche: A Journal of Entomology* 93: 107-116.
- Moffett, M. W. 1986: Trap-jaw predation and other observations on two species of *Myrmoterus* (Hymenoptera: Formicidae). – *Insectes Sociaux* 33: 85-99.
- Montgomery, M.P., Vanderwoude, C. & Lynch, A.J.J. 2015: Palatability of Baits Containing (S)-Methoprene to *Wasmannia auropunctata* (Hymenoptera: Formicidae). – *Florida Entomologist* 98: 451-455.
- Moreira, D.D.O., Bailez, A.M.V., Erthal, M., Bailez, O., Carrera, M.P. & Samuels, R.I. 2010: Resource allocation among worker castes of the leaf-cutting ants *Acromyrmex subterranea* through trophallaxis. – *Journal of Insect Physiology* 56: 1665-1670.
- Moreira, D.D.O., Erthal, M., Carrera, M.P., Silva, C.P. & Samuels, R.I. 2006: Oral trophallaxis in adult leaf-cutting ants *Acromyrmex subterranea* (Hymenoptera, Formicidae). – *Insectes Sociaux* 53: 345-348.
- Moreira, D.D.O., Viana-Bailez, A.M., Erthal Junior, M., Bailez, O.E. & Samuels, R.I. 2007: Oral trophallaxis in seven species of Attini. – *Biológico* 69: 403-404.
- Murakami, T. 2020: Non-Inseminated Queens Have Worker-Like Behaviors in Colonies of Fungus-Growing Ants, *Mycetomoellerius turrfex* Wheeler (Attini, Hymenoptera). – *Sociobiology* 67: 358.
- Murakami, T. & Higashi, S. 1997: Social organization in two primitive attine ants, *Cyphomyrmex rimosus* and *Myrmicocrypta ednaella*, with reference to their fungus substrates and food sources. – *Journal of Ethology* 15: 17-25.
- Nascimento, F.S., Tannure-Nascimento, I.C., Dantas, J.O., Turatti, I.C. & Lopes, N.P. 2013: Task-related variation of cuticular hydrocarbon profiles affect nestmate recognition in the giant ant *Dinoponera quadriceps*. – *Journal of Insect Behavior* 26: 212-222.
- Ohkawara, K. & Aonuma, H. 2016: Changes in the levels of biogenic amines associated with aggressive behavior of queen in the social parasite ant *Vollenhovia nipponica*. – *Insectes Sociaux* 63: 257-264.
- Oster, G.F. & Wilson, E.O. 1978: Caste and ecology in the social insects. – Princeton University Press, Princeton, N.J, 352 pp.
- Parmentier, T. 2020: Guests of Social Insects. In: Starr, C. (Eds.): *Encyclopedia of Social Insects*. – Springer International Publishing, Cham, pp. 1-15.
- Parmentier, T., Gaji-Ricart, M., Wenseleers, T. & Molero-Ballanas, R. 2020: Strategies of the beetle *Oochrotus unicolor* (Tenebrionidae) thriving in the waste dumps of seed-harvesting Messor ants (Formicidae). – *Ecological Entomology* 45: 583-593.
- Passera, L. & Aron, S. 2005: Les fourmis: comportement, organisation sociale et évolution. – CNRC-NRC, Ottawa, 480 pp.
- Peeters, C. 2017: Independent colony foundation in *Paraponera clavata* (Hymenoptera, Formicidae): first workers lay trophic eggs to feed queen's larvae. – *Sociobiology* 64: 417.
- Peeters, C. & Crewe, R. 1985: Worker reproduction in the ponerine ant *Ophthalmopone berthoudi*: an alternative form of eusocial organization. – *Behavioral Ecology and Sociobiology* 18: 29-37.
- Peeters, C. & Wiwatwitaya, D. 2014: Philidris ants living inside *Dischidia* epiphytes from Thailand. – *Asian Myrmecology* 6: 49-61.
- Penick, C.A. & Liebig, J. 2012: Regulation of queen development through worker aggression in a predatory ant. – *Behavioral Ecology* 23: 992-998.
- Pereira, J.C., Delabie, J.H.C., Zanette, L.R.S. & Quinet, Y.P. 2014: Studies on an Enigmatic *Blepharidatta* Wheeler Population (Hymenoptera: Formicidae) from the Brazilian Caatinga. – *Sociobiology* 61: 52-59.
- Petralia, R.S. & Vinson, S.B. 1979: Comparative anatomy of the ventral region of ant larvae, and its relation to feeding behavior. – *Psyche: A Journal of Entomology* 86: 375-394.
- Pfeiffer, M. & Linsenmair, K.E. 2007: Trophobiosis in a tropical rainforest on Borneo: Giant ants *Camponotus gigas* (Hymenoptera: Formicidae) herd wax cicadas *Bythopsyrna circulata* (Auchenorrhyncha: Flatidae). – *Asian Myrmecology* 1: 105-119.
- Quinlan, R.J. & Cherrett, J.M. 1978: Aspects of the symbiosis of the leaf-cutting ant *Acromyrmex octospinosus* (Reich) and its food fungus. – *Ecological Entomology* 3: 221-230.
- Quinlan, R.J. & Cherrett, J.M. 1979: The role of fungus in the diet of the leaf-cutting ant *Atta cephalotes* (L.). – *Ecological Entomology* 4: 151-160.
- Reid, S., Narendra, A., Taylor, R.W. & Zeil, J. 2013: Foraging ecology of the night-active bull ant *Myrmecia pyriformis*. – *Australian Journal of Zoology* 61: 170-177.
- Rettenmeyer, C.W. 1963: Behavioral studies of army ants. – University of Kansas Science Bulletin 44: 281-465.
- Richard, F.-J. & Errard, C. 2009: Hygienic behavior, liquid-foraging, and trophallaxis in the leaf-cutting ants, *Acromyrmex subterranea* and *Acromyrmex octospinosus*. – *Journal of Insect Science* 9: 1-9.
- Sanada, S., Satoh, T. & Obara, Y. 1998: How average relatedness affects the frequency of trophallaxis between workers in an experimental colony of the polygynous ant, *Camponotus yamaokai*. – *Journal of Ethology* 16: 43-48.
- Sanada, S., Satoh, T. & Obara, Y. 1997: Trophallaxis and genetic relationships among workers in colonies of the polygynous ant *Camponotus yamaokai*. – *Ethology Ecology & Evolution* 9: 149-158.
- Santos, J.C., Yamamoto, M., Oliveira, F.R. & Del-Claro, K. 2005: Behavioral repertoire of the Weaver ant *Camponotus (Myrmobrachys) senex* (Hymenoptera: Formicidae). – *Sociobiology* 45: 12.
- Sasaki, K., Satoh, T. & Obara, Y. 1996: Cooperative foundation of colonies by unrelated foundresses in the ant *Polyrhachis moesta*. – *Insectes Sociaux* 43: 217-226.
- Sasaki, T. & Tsuji, K. 2003: Behavioral property of unusual large workers in the ant, *Pristomyrmex pungens*. – *Journal of Ethology* 21: 145-151.
- Satoh, A. & Ohkawara, K. 2008: Dominance hierarchies and aggressive behavior among queens of the inquiline ant *Vollenhovia nipponica*. – *Insectes Sociaux* 55: 200-206.
- Schneider, M. 2000: Observations on brood care behavior of the leafcutting ant *Atta sexdens* L. (Hymenoptera: Formicidae). – 2: 895.
- Scheirila, T.C. 1944: The reproductive functions of the army ant queen as pace-makers of the group behavior pattern. – *Journal of the New York Entomological Society* 52: 153-192.
- Schrempf, A., Giehr, J., Röhl, R., Steigleder, S. & Heinze, J. 2017: Royal Darwinian Demons: Enforced Changes in Reproductive Efforts Do Not Affect the Life Expectancy of Ant Queens. – *The American Naturalist* 189: 436-442.
- Schrempf, A. & Heinze, J. 2006: Proximate mechanisms of male morph determination in the ant *Cardiocondyla obscurior*. – *Evolution & Development* 8: 266-272.
- Sendova-Franks, A.B., Hayward, R.K., Wulf, B., Klimek, T., James, R., Planqué, R., Britton, N.F. & Franks, N.R. 2010: Emergency networking: famine relief in ant colonies. – *Animal Behaviour* 79: 473-485.
- Sola, F.J. & Josens, R. 2016: Feeding behavior and social interactions of the Argentine ant *Linepithema humile* change with sucrose concentration. – *Bulletin of Entomological Research* 106: 522-529.
- Solis, D.R., Caetano, F.H., Yabuki, A.T., Moretti, T.C. & Bueno, O.C. 2009: Ultramorphology of the digestive tract of *Paratrechina longicornis* (Hymenoptera, Formicidae). – *Sociobiology* 53: 51-59.
- Soroker, V., Lucas, C., Simon, T., Hefetz, A., Fresneau, D. & Durand, J.L. 2003: Hydrocarbon distribution and colony odour homogenisation in *Pachycondyla apicalis*. – *Insectes Sociaux* 50: 212-217.
- Staab, M., Fornoff, F., Klein, A.-M. & Blüthgen, N. 2017: Ants at plant wounds: a little-known trophic interaction with evolutionary implications for ant-plant interactions. – *The American Naturalist* 190: 442-450.
- Stroeymeyt, N., Joye, P. & Keller, L. 2017: Polydomy enhances foraging performance in ant colonies. – *Proceedings of the Royal Society B: Biological Sciences* 284: 20170269.
- Stuart, R.J. 1981a: Abdominal trophallaxis in the slave-making ant, *Harpagoxenus americanus* (Hymenoptera: Formicidae). – *Psyche: A Journal of Entomology* 88: 331-334.

- Stuart, R.J. 1981b: Abdominal Trophallaxis in the Slave-Making Ant, *Harpagoxenus Americanus* (Hymenoptera: Formicidae). – *Psyche: A Journal of Entomology* 88: 331-334.
- Stuart, R.J. & Bell, P.D. 1980: Stridulation by workers of the ant, *Leptothorax muscorum* (Nylander) (Hymenoptera: Formicidae). – *Psyche: A Journal of Entomology* 87: 199-210.
- Stuart, R.J. & Moffett, M.W. 1994: Recruitment communication and pheromone trails in the neotropical ants, *Leptothorax* (*Nesomyrmex*) *spininodis* and *L. (N.) echinatinodis*. – *Experientia* 50: 850-852.
- Tay, W.T. & Crozier, R.H. 2000: Nestmate interactions and egg-laying behaviour in the queenless Ponerine ant *Rhytidoponera* sp. 12. – *Insectes Sociaux* 47: 133-140.
- Taylor, R.W. 2014: Evidence for the Absence of Worker Behavioral Subcastes in the Sociobiologically Primitive Australian Ant *Nothomyrmecia macrops* Clark (Hymenoptera: Formicidae: Myrmecinae). – *Psyche: A Journal of Entomology* 2014: 1-7.
- Thomas, J.A. & Wardlaw, J.C. 1992: The capacity of a *Myrmica* ant nest to support a predacious species of *Maculieea* butterfly. – *Oecologia* 91: 101-109.
- Tinaut, A., Ruano, F. & Martinez, M.D. 2005: Biology, distribution and taxonomic status of the parasitic ants of the Iberian peninsula (Hymenoptera: Formicidae, Myrmecinae). – *Sociobiology* 46: 449-489.
- Torossian, C. 1959: Les échanges trophallactiques proctodéaux chez la fourmi *Dolichoderus quadripunctatus* (Hyménoptère-Formicoidea). – *Insectes Sociaux* 6: 369-374.
- Torres, J.A., Snelling, R.R. & Jones, T.H. 2000: Distribution, ecology and behaviour of *Anochetus kempfi* (Hymenoptera: Formicidae) and description of the sexual forms. – *Sociobiology* 36: 505-516.
- Tragust, S., Mitteregger, B., Barone, V., Konrad, M., Ugelvig, L.V. & Cremer, S. 2013: Ants disinfect fungus-exposed brood by oral uptake and spread of their poison. – *Current Biology* 23: 76-82.
- Traniello, J.F.A. 1982: Population Structure and Social Organization in the Primitive Ant, *Amblyopone pallipes* (Hymenoptera: Formicidae). – *Psyche: A Journal of Entomology* 89: 65-80.
- Traniello, J.F.A. & Jayasuriya, A.K. 1985: The biology of the primitive ant *Aneuretus simoni* (Emery) (Formicidae: Anerginae) II. The social ethogram and division of labor. – *Insectes Sociaux* 32: 375-388.
- Tschinkel, W.R. & Kwapich, C.L. 2016: The Florida harvester ant, *Pogonomyrmex badius*, relies on germination to consume large seeds Nieh, J.C. – *PLoS ONE* 11: e0166907.
- Ulrich, Y., Burns, D., Libbrecht, R. & Kronauer, D.J.C. 2016: Ant larvae regulate worker foraging behavior and ovarian activity in a dose-dependent manner. – *Behavioral Ecology and Sociobiology* 70: 1011-1018.
- Urbani, C.B. 1991: Evolutionary aspects of foraging efficiency and niche shift in two sympatric seed-harvesting ants (*Messor*) (Hymenoptera Formicidae). – *Ethology Ecology & Evolution* 3: 75-79.
- Vargo, E.L. & Passera, L. 1991: Pheromonal and behavioral queen control over the production of gynes in the Argentine ant *Iridomyrmex humilis* (Mayr). – *Behavioral Ecology and Sociobiology* 28: 161-169.
- Villet, M.H. 1991: Social differentiation and division of labour in the queenless ant *Platythyrea schultzei* Forel 1910 (Hymenoptera Formicidae). – *Tropical Zoology* 4.
- Villet, M.H., Hanrahan, S.A. & Walthers, C. 1990: Larval structures associated with larva-to-adult trophallaxis in *Platythyrea* (Hymenoptera: Formicidae). – *International Journal of Insect Morphology and Embryology* 19: 243-256.
- Wada-Katsumata, A., Yamaoka, R. & Aonuma, H. 2011: Social interactions influence dopamine and octopamine homeostasis in the brain of the ant *Formica japonica*. – *Journal of Experimental Biology* 214: 1707-1713.
- Wagner, D., Brown, M.J.F., Broun, P., Cuevas, W., Moses, L.E., Chao, D.L. & Gordon, D.M. 1998: [No title found]. – *Journal of Chemical Ecology* 24: 2021-2037.
- Wardlaw, J.C. & Elmes, G.W. 1995: Trophic eggs laid by fertile *Myrmica* queens (Hymenoptera: Formicidae). – *Insectes Sociaux* 42: 303-308.
- Ware, A.B., Compton, S.G. & Robertson, H.G. 1990: Gamergate reproduction in the ant *Streblognathus aethiopicus* Smith (Hymenoptera: Formicidae). – *Insectes Sociaux* 37: 189-199.
- Warner, J.R. 2003: Bait preferences and toxicity of insecticides to white-footed ants *Technomyrmex albigipes* (Hymenoptera: Formicidae). – PhD thesis, UNIVERSITY OF FLORIDA, United States, 70 pp.
- Weissflog, A., Sternheim, E., Dorow, W.H.O., Berghoff, S. & Maschwitz, U. 2000: How to study subterranean army ants: a novel method for locating and monitoring field populations of the South East Asian army ant *Dorylus (Dichthadia) laevigatus* Smith, 1857 (Formicidae, Dorylinae) with observations on their ecology. – *Insectes Sociaux* 47: 317-324.
- Went, F.W., Wheeler, J. & Wheeler, G.C. 1972: Feeding and digestion in some ants (*Veromessor* and *Manica*). – *BioScience* 22: 82-88.
- wheeler, w. M. 1925: A New Guest-Ant and Other New Formicidae from Barro Colorado Island, Panama. *Biological Bulletin*, 49(3), 150-181. doi:10.2307/1536460. – *Biological Bulletin* 49: 150-181.
- Wheeler, D.E. 1984: Behavior of the ant, *Procrystocerus Scabriusculus* (Hymenoptera: Formicidae), with comparisons to other Cephalotines. – *Psyche: A Journal of Entomology* 91: 171-192.
- Wheeler, G.C. & Wheeler, J. 1954: The Ant Larvae of the Myrmicine Tribes Meranoplinae, Ochetomyrmecinae and Tetramoriinae. – *The American Naturalist* 52: 443-452.
- Wheeler, G.C. & Wheeler, J. 1966: The Ant Larvae of the Subfamily Dolichoderinae: Supplement. – *Annals of the Entomological Society of America* 59: 726-732.
- Wheeler, G.C. & Wheeler, J. 1952: The Ant Larvae of the Subfamily Ponerinae. Part I. – *American Midland Naturalist* 48: 111.
- Wheeler, W.M. 1918: A study of some ant larvae, with a consideration of the origin and meaning of the social habit among insects. – *Proceedings of the American Philosophical Society* 57: 293-343.
- Wheeler, W.M. 1908: Honey ants, with a revision of the American Myrmecocysti. – *Bulletin American Museum of Natural History* XXIV: 345-397.
- Wheeler, W.M. 1915: The Australian honey-ants of the genus *Leptomymex* Mayr. – *Proceedings of the American Academy of Arts and Sciences* 51: 255-286.
- Whelden, R.M. & Haskins, C.P. 1954: Note on the exchange of ingluvial food in the genus *Myrmecia*. – *Insectes Sociaux* 1: 5.
- Wild, A.L. & Brake, I. 2009: Field observations on *Milichia patrizii* ant-mugging flies (Diptera: Milichiidae: Milichiinae) in KwaZulu-Natal, South Africa. – *African Invertebrates* 50: 205-212.
- Wilkinson, R.C., Bhatkar, A.P., Kloft, W.J., Whitcomb, W.H. & Kloft, E.S. 1978: *Formica integra* 2. Feeding, trophallaxis, and interspecific confrontation behavior. – *The Florida Entomologist* 61: 179.
- Wilson, E.O. 1976: A social ethogram of the neotropical arboreal ant *Zacryptocerus varians* (Fr. Smith). – *Animal Behaviour* 24: 354-363.
- Wilson, E.O. 1956: Feeding Behavior in the Ant *Rhopalothrix Biroi* Szabó. – *Psyche: A Journal of Entomology* 63: 21-23.
- Wilson, E.O. 1987: The Earliest Known Ants: An Analysis of the Cretaceous Species and an Inference Concerning Their Social Organization. – *Paleobiology* 13: 44-53.
- Wilson, E.O. 1953: The Ecology of Some North American Dacetine Ants. – *Annals of the Entomological Society of America* 46: 479-495.
- Yamauchi, K., Furukawa, T., Kinomura, K., Takamine, H. & Tsuji, K. 1991: Secondary polygyny by inbred wingless sexuals in the Dolichoderine ant *Technomyrmex albigipes*. – *Behavioral Ecology and Sociobiology* 29: 313-319.
- Zhao, Z.Q., Davies, K.A., Brenton-Rule, E.C., Grangier, J., Gruber, M.A.M., Giblin-Davis, R.M. & Lester, P.J. 2013: *Diploscapter formicidae* sp. n. (Rhabditiida: Diploscapteridae), from the ant *Prolasius advenus* (Hymenoptera: Formicidae) in New Zealand. – *Nematology* 15: 109-123.