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Widespread occurrence of asexual reproduction in higher termites of the *Termes* group (Termitidae: Termitinae)

Working title: Parthenogenesis in higher termites of the *Termes* group

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We dedicate this work to the memory of Philippe Cerdan (1959–2018), the director of HYDRECO laboratory in French Guiana.

ORCID references of authors

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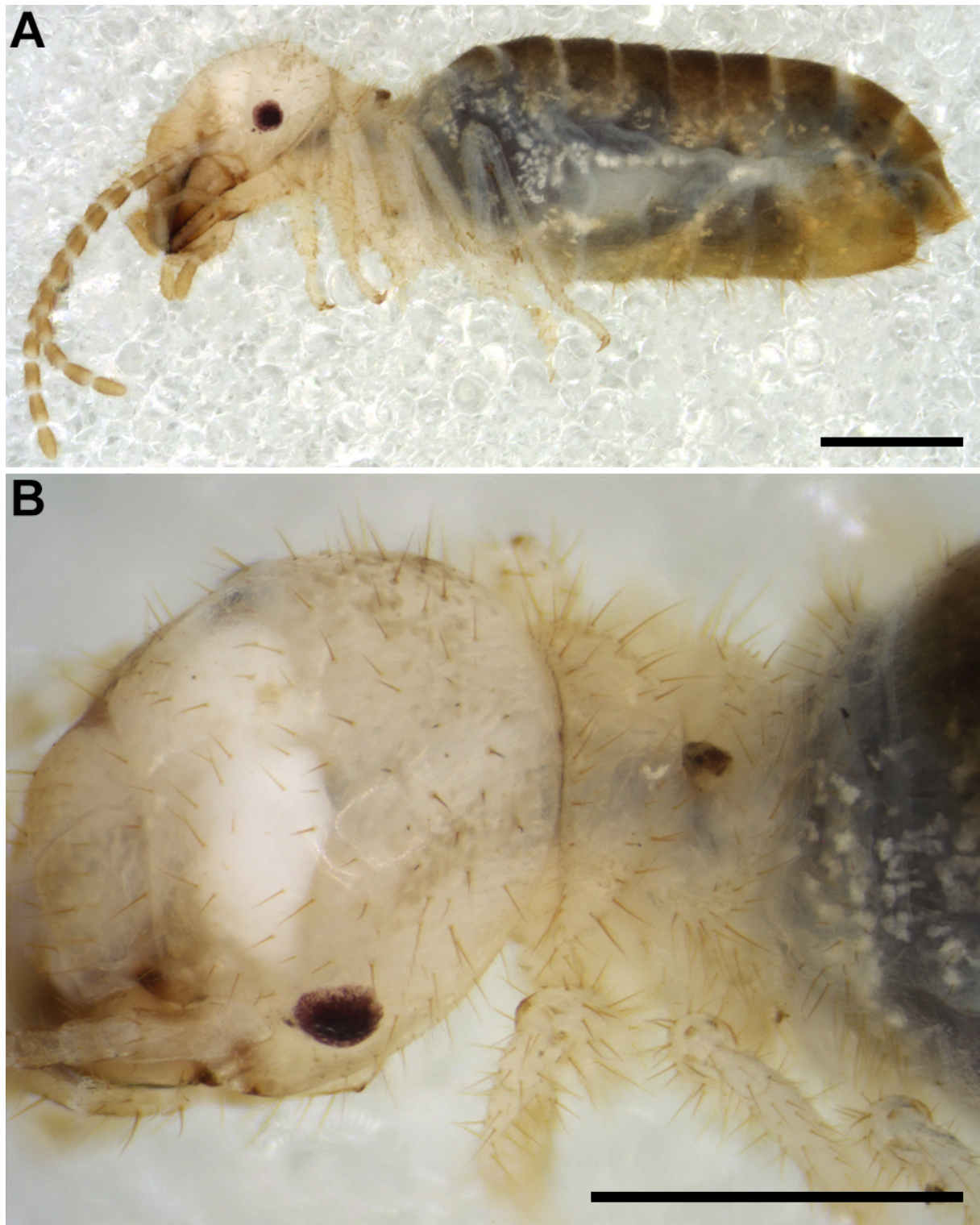


Figure S1. Female ergatoid (worker-derived) neotenic in *Palmitermes impostor* in left lateral view (A), and detail of the thorax (B) showing fully developed compound eyes and no traces of wingbuds. Images were obtained with a Zeiss Discovery V12 stereomicroscope equipped with an AxioCam ICc3 camera and controlled by AxioVision software. Images are compilations of series of successive stepwise-focused photographs. Scale bars represent 0.5 mm.

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Table S1. Composition of the sampled nests of *P. impostor*, *S. trispinosus* and *I. inquilinus*. Colonies in bold and with colony code were used for genetic analyses

	Colony code	Primary queen	Primary king	Neotenic queens	Female aspirants	Neotenic kings	Nymphs stages 1-4	Nymphs stage 5	Alates	Other reproductives	Workers	Soldiers	Collection date	GPS
<i>Palmitermes impostor</i>	PA	•	•		•		•				•	•	11/2015	N5° 03.980' W52° 59.850'
	PB	•	•		•		•				•	•	11/2015	N5° 04.041' W52° 59.873'
	PC	•	•		•		•				•	•	11/2015	N5° 03.997' W52° 59.879'
	PD	•			•		•				•	•	11/2015	N5° 04.638' W53° 01.325'
	PE	•	•		•		•				•	•	11/2015	N5° 04.358' W53° 03.354'
	PF				•		•				•	•	11/2015	N5° 04.065' W52° 59.867'
	PG				•		•				•	•	11/2015	N5° 04.660' W53° 01.313'
	PH	•	•		•		•	•			•	•	6/2016	N5° 04.113' W53° 03.229'
	PI			22	•		•				•	•	11/2015	N5° 04.290' W52° 58.746'
	PJ		•	98	•		•			<i>ergatoid</i>	•	•	11/2015	N5° 04.237' W52° 58.743'
	PK		•	129	•		•	•	•	<i>pseudomago</i>	•	•	6/2016	N5° 03.980' W52° 59.875'
	P12	•	•		•		•				•	•	6/2016	N5° 07.187' W52° 57.918'
	P13	•	•		•		•				•	•	11/2015	N5° 03.996' W52° 59.889'
	P14	•	•		•		•				•	•	6/2016	N5° 04.460' W52° 58.794'
	P15	•	•		•		•				•	•	11/2015	N5° 04.016' W52° 59.914'
	P16	•	•		•		•				•	•	6/2016	N5° 04.601' W52° 58.317'
	P17	•	•		•		•	•		<i>ergatoid</i>	•	•	6/2016	N5° 04.102' W53° 03.075'
	P18		•	86	•		•				•	•	6/2016	N5° 04.610' W52° 58.336'
	P19			46	•		•	•			•	•	6/2016	N5° 03.975' W52° 59.867'
	P20			1	•		•	•			•	•	6/2016	N5° 04.025' W52° 59.876'
	P21		•								•	•	11/2015	N5° 03.970' W52° 59.886'
	P22				•		•				•	•	11/2015	N5° 03.987' W52° 59.970'
	P23				•		•				•	•	6/2016	N5° 04.082' W53° 03.229'
	P24				•		•				•	•	6/2016	N5° 04.095' W53° 03.231'
	P25				•		•				•	•	11/2015	N5° 03.972' W52° 59.882'
	P26						•				•	•	11/2015	N5° 03.925' W52° 59.951'
	P27							•			•	•	1/2017	N5° 06.653' W52° 57.944'
	P28						•				•	•	4/2017	N5° 03.893' W52° 59.848'
	P29										•	•	6/2016	N5° 04.055' W52° 59.872'
	P30										•	•	11/2015	N5° 04.201' W52° 58.780'
	P31										•	•	4/2017	N5° 03.886' W52° 59.902'
	P32										•	•	11/2015	N5° 04.041' W52° 59.873'

	Colony code	Primary queen	Primary king	Neotenic queens	Female aspirants	Neotenic kings	Nymphs stages 1-4	Nymphs stage 5	Alates	Other reproductives	Workers	Soldiers	Collection date	GPS
<i>Spinitermes trispinosus</i>	SA	•	•		•		•				•	•	6/2016	N5° 04.421' W52° 58.776'
	SB	•	•		•						•	•	4/2018	N5° 04.401' W52° 58.715'
	SC			1							•	•	5/2018	N5° 03.941' W52° 58.928'
	SD				•		•	•			•	•	6/2016	N5° 04.617' W52° 58.339'
	S5	•	•								•	•	5/2018	N3° 37.194' W53° 11.970'
	S6	•	•								•	•	4/2017	N5° 03.891' W52° 59.885'
	S7	•	•								•	•	5/2018	N5° 03.912' W52° 58.927'
	S8			1			•	•			•	•	4/2017	N5° 04.624' W53° 01.324'
	S9										•	•	4/2015	N5° 04.086' W53° 03.241'
	S10						•	•			•	•	4/2017	N5° 04.375' W52° 58.767'
	S11										•	•	5/2018	N5° 03.917' W52° 58.918'
	S12										•	•	5/2018	N3° 37.161' W53° 11.990'
	S13										•	•	4/2017	N5° 03.822' W52° 59.919'
	S14						•	•			•	•	6/2016	N5° 04.153' W53° 03.311'

	Colony code	Primary queen	Primary king	Neotenic queens	Female aspirants	Neotenic kings	Nymphs stages 1-4	Nymphs stage 5	Alates	Other reproductives	Workers	Soldiers	Collection date	GPS
<i>Inquilitermes inquilinus</i>	IA				•		•	•			•	•	4/2018	N5° 03.398' W52° 58.659'
	IB	5	6		•		•				•	•	4/2018	N5° 04.454' W52° 58.781'
	IC		•	2	•	1	•	•	•		•	•	10/2014	N5° 04.386' W52° 58.768'
	ID	•	•		•		•				•	•	6/2016	N5° 04.335' W52° 58.783'
	IE	•	•	8	•		•	•			•	•	4/2018	N5° 04.387' W52° 58.687'
	IF	•	•								•	•	4/2018	N5° 04.609' W53° 01.211'
	I7	•	•	1	•	2	•	•	•		•	•	5/2018	N3° 37.817' W53° 12.351'
	I8		•	3	•		•	•			•	•	4/2018	N5° 04.383' W52° 58.645'
	I9	•	•								•	•	4/2018	N5° 04.226' W53° 02.124'
	I10	•	2								•	•	6/2016	N5° 04.429' W52° 58.761'
	I11	8	10								•	•	4/2018	N5° 04.467' W52° 58.778'
	I12		•		•		•	•			•	•	4/2017	N5° 03.809' W52° 59.910'
	I13			5	•	1	•				•	•	4/2015	N5° 04.335' W52° 58.783'
	I14			6							•	•	10/2010	N5° 04.655' W53° 01.309'
	I15			10							•	•	3/2014	N5° 04.165' W52° 58.740'
	I16						•	•	•		•	•	4/2018	N5° 04.603' W53° 01.208'
	I17										•	•	4/2015	N5° 04.423' W53° 03.265'
	I18										•	•	9/2012	N5° 04.618' W53° 01.339'
	I19										•	•	5/2018	N3° 37.160' W53° 11.980'

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Table S2. Microsatellite characteristics and PCR multiplexes used in this study

<i>Palmitertermes impostor</i> (92 workers from 11 nests)												
Locus ^c	GenBank Accession	5' dye ^b	Repeat motif	Primer sequences (5'-3')	R (bp)	N _A	N _E	f _A (A)	H _O	H _E	F _{IS}	
Multiplex P1												
<i>Ctub</i> -72	KJ922359	VIC	(TG)12	F: TGCACCTAGTAAGAATATGCACGG R: CGACATCACGTTTCATAGCAAG	134-140	3	2.07	0.587 (136)	0.402	0.517	0.227	
<i>Ctub</i> -74	KJ922360	VIC	(CTT)13	F: CTGCCTATATTCACCTTTTCTT R: ACACGTCGGCGTAAATATCC	90-99	2	1.99	0.527 (99)	0.484	0.498	0.036	
<i>Ctub</i> -84	KJ922364	PET	(CA)15	F: GCAAAGAGTAAGAATTATGTCGTTT R: TGTCTGAAATCACGGAGATGA	236-238	2	1.76	0.961 (238)	0.078	0.075	-0.035	
Multiplex P2												
<i>Ctub</i> -21	KJ922353	VIC	(AG)10	F: AGCACATGCGAAGTCATCAG R: TCCAGCACAAACATCTTCA	204-220	2	1.97	0.562 (220)	0.382	0.492	0.230	
<i>Ctub</i> -43	KJ922355	VIC	(GT)13	F: ACCCCGATTATGTGAATGG R: TGAAATTCTGTACGTGGACCTT	124-128	2	1.61	0.745 (124)	0.380	0.380	0.005	
<i>Ctub</i> -80	KJ922363	NED	(AC)15	F: TCTTCGCGATGACAGACACT R: AAACGTTAGTTATGCGGCGA	265-293	7	3.12	0.410 (269)	0.730	0.680	-0.069	
Multiplex P3												
<i>Ctub</i> -47 ^a	MK086020	6' FAM (A)	(TG)20	F: AGGTTCCAGTGTGCTGGAGT R: GCGACCAATTTTCTACACCC	133-157	5	3.06	0.473 (133)	0.620	0.673	0.085	
<i>Ctub</i> -58 ^a	MK086021	PET (D)	(GT)11	F: TCCATCTTTTAAAGGGAAGCG R: AAGCTGCACAGATGTCAACAC	273-275	2	1.93	0.593 (273)	0.440	0.483	0.095	
<i>Ctub</i> -88 ^a	MK086022	VIC (B)	(AC)16	F: TTATCGAACCTGTAGCACGC R: TGGTAGCACGGTAATTCATATACA	171-175	2	1.76	0.685 (171)	0.457	0.432	-0.052	
<i>Spinitermes trispinosus</i> (31 workers from 4 nests)												
Locus ^c	GenBank Accession	5' dye ^b	Repeat motif	Primer sequences (5'-3')	R (bp)	N _A	N _E	f _A (A)	H _O	H _E	F _{IS}	
Multiplex S1												
<i>Ctub</i> -42	KJ922354	NED	(AC)13	F: AGAAGGTGTCATTCAATCATTTG R: GATTCTGACTGCTGATGATTTT	249-253	3	1.58	0.774 (249)	0.452	0.367	-0.216	
<i>Ctub</i> -95	KJ922370	PET	(TCT)21	F: GAATCTGAACACAAGTACCCTGC R: TGGTTGAGAAGGCCAAACT	105-121	5	4.31	0.317 (108)	0.767	0.768	0.018	
Multiplex S2												
<i>Ctub</i> -72	KJ922359	VIC	(TG)12	F: TGCACCTAGTAAGAATATGCACGG R: CGACATCACGTTTCATAGCAAG	132-143	4	3.15	0.448 (132)	0.793	0.683	-0.145	
<i>Inquilinitermes inquilinus</i> (36 workers from 5 nests)												
Locus ^c	GenBank Accession	5' dye ^b	Repeat motif	Primer sequences (5'-3')	R (bp)	N _A	N _E	f _A (A)	H _O	H _E	F _{IS}	
Multiplex I1												
<i>linq</i> -03 ^a	MK092077	NED (C)	(AC)19	F: CTTAGATCACACGGCATTCTG R: GTATGCCAGCAGTAGCATCTG	167-177	4	3.24	0.444 (175)	0.889	0.691	-0.273	
<i>linq</i> -04 ^a	MK092078	PET (D)	(AG)17	F: TGCGTTGACAAAGCTGAGAAG R: AGAACGGTTGGCAATTAGC	180-182	2	1.36	0.853 (182)	0.294	0.251	-0.158	
<i>linq</i> -12 ^a	MK092080	PET (D)	(AG)20	F: AACTACTTCCAGCCAAACGG R: GGTGTTGGTGGTTTACTGC	235-247	6	3.56	0.429 (243)	0.657	0.719	0.101	
<i>linq</i> -15 ^a	MK092082	NED (C)	(AC)21	F: GTACGATTCTCCGCCTTACG R: TTTACGCTGTTGGAGTTACGTG	255-272	4	3.48	0.371 (255)	0.943	0.712	-0.311	
<i>linq</i> -18 ^a	MK092084	VIC (B)	(AC)20	F: TTCGTACGTTGAACCTCAT R: TGGACTCTATTCAAAGGGAC	311-319	3	1.70	0.742 (315)	0.455	0.413	-0.086	
Multiplex I2												
<i>linq</i> -07 ^a	MK092079	NED (C)	(AAG)18	F: AGAAACACCGACATGAACCG R: TATTGAAGCGCAATCCAG	207-226	6	2.68	0.563 (220)	0.844	0.627	-0.332	
<i>linq</i> -14 ^a	MK092081	VIC (B)	(AC)18	F: AACACGATGTGGTGTCCAAG R: TGCTGCTTCGAATAGTGCAA	259-269	4	2.54	0.574 (259)	0.765	0.606	-0.248	
<i>linq</i> -16 ^a	MK092083	PET (D)	(AG)20	F: CGGCAGCAGTATAATGGACA R: GCGTAACATCCGAACACTCA	275-283	5	1.89	0.710 (275)	0.581	0.471	-0.218	

Allele size range (R), number of alleles (N_A) and effective alleles (N_E), the frequency of the most frequent allele (f_A), observed (H_O) and expected (H_E) heterozygosities, and the inbreeding coefficient (F_{IS}) are based on genotyped workers.

^a Indicates newly developed microsatellite markers for *P. impostor* from the library prepared for *C. tuberosus* by Fournier *et al.* (2015) and for *I. inquilinus* from the newly developed library.

^b Fluorescent dyes at the 5' end of the forward primer were either directly integrated during order or incorporated through the three-primer PCR approach developed by Blacket *et al.* (2012) (used universal primers —tails A, B, C and D— are indicated between parentheses).

^c Multiplex optimization was carried using Multiplex Manager v1.2 (Holleley and Geerts 2009). PCR reagent amounts followed Fournier *et al.* (2015), and were adapted in the case of loci amplified through the three-primer approach. All multiplexes were amplified following cycling conditions in Fournier *et al.* (2015).

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Table S3. Genotypes recorded in eleven analyzed colonies of *Palmitermes impostor*.

Fully homozygous individuals in bold, genotypes containing alleles exclusive to the mother or one of the inferred parents in red.

Colony	Caste (n)	Locus																	
		Ctub- 21		Ctub- 43		Ctub- 47		Ctub- 58		Ctub- 72		Ctub- 74		Ctub- 80		Ctub- 84		Ctub- 88	
		Genotype	n	Genotype	n	Genotype	n	Genotype	n	Genotype	n	Genotype	n	Genotype	n	Genotype	n	Genotype	n
PA	primary king	204/220		124/124		153/155		273/273		134/136		90/99		285/291		238/238		171/171	
	primary queen	204/220		124/124		133/153		275/275		136/140		90/90		269/291		238/238		171/175	
	workers (10)	204/220	5	124/124	10	133/155	6	273/275	10	134/140	1	90/99	7	269/285	4	238/238	10	171/175	5
		220/220	3			133/153	1			136/136	6	90/90	3	291/291	1			171/171	5
		204/204	2			153/155	2			136/140	1			269/291	3				
	soldiers (8)					153/153	1			134/136	2			285/291	2				
		204/220	4	124/124	8	133/155	5	273/275	8	136/136	1	90/99	5	291/291	3	238/238	8	171/175	5
		220/220	2			153/155	2			136/140	4	90/90	3	269/291	2			171/171	3
		204/204	2			153/153	1			134/136	3			285/291	3				
	female aspirant 1	220/220		124/124		133/133		275/275		140/140		90/90		291/291		238/238		175/175	
	female aspirant 2	204/204		124/124		133/133		275/275		136/136		90/90		291/291		238/238		171/171	
	female aspirant 3	220/220		124/124		153/153		275/275		136/136		90/90		291/291		238/238		175/175	
female aspirant 4	220/220		124/124		133/133		275/275		140/140		90/90		291/291		238/238		175/175		
female aspirant 5	220/220		124/124		133/133		275/275		136/136		90/90		269/269		238/238		171/171		
female aspirant 6	220/220		124/124		153/153		275/275		136/136		90/90		291/291		238/238		171/171		
female aspirant 7	220/220		124/124		153/153		275/275		140/140		90/90		269/269		238/238		171/171		
female aspirant 8	220/220		124/124		133/133		275/275		136/136		90/90		291/291		238/238		171/171		
PB	primary king	204/220		124/128		133/153		273/275		134/136		99/99		269/269		238/238		175/175	
	primary queen	220/220		124/128		133/153		273/275		136/136		99/99		267/291		238/238		171/171	
	workers (8)	204/220	4	124/124	2	133/153	2	273/273	4	136/136	3	99/99	8	267/269	4	238/238	8	171/175	8
		220/220	4	128/128	1	153/153	3	273/275	2	134/136	5			269/291	4				
				124/128	5	133/133	3	275/275	2										
	soldiers (8)	204/220	1	124/124	4	133/153	4	273/273	2	136/136	7	99/99	8	267/269	3	238/238	8	171/175	8
		220/220	7	128/128	2	153/153	3	273/275	5	134/136	1			269/291	5				
				124/128	2	133/133	1	275/275	1										
	female aspirant 1	220/220		124/124		133/133		275/275		136/136		99/99		267/267		238/238		171/171	
female aspirant 2	220/220		124/124		133/133		273/273		136/136		99/99		267/267		238/238		171/171		
female aspirant 3	220/220		124/124		133/133		275/275		136/136		99/99		267/267		238/238		171/171		
PC	primary king	204/204		124/128		155/157		273/273		134/136		90/90		269/291		236/238		171/175	
	primary queen	204/220		124/124		133/155		275/275		134/136		90/90		267/269		238/238		171/175	
	workers (10)	204/204	3	124/124	5	155/157	5	273/275	10	134/136	7	90/90	10	267/291	4	236/238	3	171/175	6
		204/220	7	124/128	5	133/157	3			136/136	3			269/269	3	238/238	7	171/171	2
						155/155	1							269/291	3			175/175	2
	soldiers (8)	204/204	5	124/124	2	155/157	4	273/275	8	134/136	3	90/90	8	267/291	2	236/238	5	171/175	4
		204/220	3	124/128	6	155/155	1			134/134	1			269/269	4	238/238	3	171/171	1
						133/155	3			136/136	4			269/291	1			175/175	3
													267/269	1					
female aspirant 1	204/204		124/128		133/157		273/275		134/134		90/90		267/291		238/238		171/171		
female aspirant 2	204/204		124/124		155/155		275/275		134/134		90/90		267/267		238/238		175/175		
female aspirant 3	220/220		124/124		133/133		275/275		136/136		90/90		267/267		238/238		175/175		
PD	primary king (inferred)	204/204		124/128		133/155		273/275		134/134		99/99		291/291		238/238		171/175	
	primary queen	204/204		124/124		133/133		275/275		134/140		90/99		269/291		238/238		171/171	
	workers (8)	204/204	8	124/124	2	133/155	3	273/275	4	134/134	5	90/99	3	269/291	4	238/238	8	171/171	6
				124/128	6	133/133	5	275/275	4	134/140	3	99/99	5	291/291	4			171/175	2
	soldiers (8)	204/204	8	124/124	1	133/155	2	273/275	4	134/134	1	90/99	3	269/291	2	238/238	8	171/171	4
				124/128	7	133/133	6	275/275	4	134/140	7	99/99	5	291/291	6			171/175	4
	male nymphs (8)	204/204	8	124/128	3	133/155	6	273/275	7	134/134	5	90/99	5	269/291	6	238/238	8	171/175	1
				124/124	5	133/133	2	275/275	1	134/140	3	99/99	3	291/291	2			171/171	7
	female nymph 1	204/204		124/128		133/133		275/275		134/134		99/99		269/291		238/238		171/171	
	female nymph 2	204/204		124/124		133/133		275/275		134/134		90/99		269/291		238/238		171/175	
	female nymph 3	204/204		124/124		133/133		275/275		134/140		90/99		269/291		238/238		171/171	
	female nymph 4	204/204		124/124		133/155		273/275		134/134		99/99		291/291		238/238		171/175	
	female nymph 5	204/204		124/128		133/155		275/275		134/134		90/99		269/291		238/238		171/171	
	female nymph 6	204/204		124/124		133/155		275/275		134/140		90/99		291/291		238/238		171/171	
	female nymph 7	204/204		124/124		133/155		275/275		134/134		99/99		291/291		238/238		171/171	
	female nymph 8	204/204		124/124		133/133		273/275		134/134		99/99		291/291		238/238		171/171	
female aspirant 1	204/204		124/124		133/133		275/275		140/140		90/90		291/291		238/238		171/171		
female aspirant 2	204/204		124/124		133/133		275/275		140/140		90/90		269/269		238/238		171/171		
female aspirant 3	204/204		124/124		133/133		275/275		140/140		90/90		269/269		238/238		171/171		

SUPPORTING INFORMATION

Colony	Caste (n)	Locus									
		<i>Ctub- 21</i>	<i>Ctub- 43</i>	<i>Ctub- 47</i>	<i>Ctub- 58</i>	<i>Ctub- 72</i>	<i>Ctub- 74</i>	<i>Ctub- 80</i>	<i>Ctub- 84</i>	<i>Ctub- 88</i>	
		Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	
PE	primary king	220/220	128/128	133/151	273/273	134/136	90/90	265/293	238/238	171/171	
	primary queen	204/204	124/128	133/133	273/273	134/136	90/99	269/269	236/238	171/171	
	workers (8)	204/220 8	124/128 7 128/128 1	133/151 3 133/133 5	273/273 8	134/136 5 136/136 3	90/99 4 90/90 3	265/269 4 269/293 4	238/238 4 236/238 4	171/171 8	
	soldiers (8)	204/220 8	124/128 3 128/128 5	133/151 5 133/133 3	273/273 8	134/136 5 136/136 3	90/99 2 90/90 6	265/269 4 269/293 4	238/238 2 236/238 6	171/171 8	
	female aspirant 1	204/204	124/124	133/133	273/273	134/134	90/90	269/269	238/238	171/171	
	female aspirant 2	204/204	124/124	133/133	273/273	134/134	99/99	269/269	236/236	171/171	
	female aspirant 3	204/204	128/128	133/133	273/273	134/134	99/99	269/269	236/236	171/171	
	female aspirant 4	204/204	128/128	133/133	273/273	136/136	99/99	269/269	236/236	171/171	
	female aspirant 5	204/204	128/128	133/133	273/273	134/134	99/99	269/269	236/236	171/171	
	female aspirant 6	204/204	124/124	133/133	273/273	136/136	99/99	269/269	236/236	171/171	
	female aspirant 7	204/204	128/128	133/133	273/273	134/134	90/90	269/269	236/236	171/171	
	female aspirant 8	204/204	128/128	133/133	273/273	136/136	99/99	269/269	238/238	171/171	
PF	parental genotypes (inferred)	204/220 220/220	124/128 124/124	133/155 153/153	273/273	134/136	90/99 99/99	291/291 267/269	238/238	171/171 171/175	
	workers (8)	204/220 4 220/220 4	124/124 5 124/128 3	153/155 6 133/153 2	273/273 8	136/136 3 134/136 4 134/134 1	90/99 7 99/99 1	267/291 4 269/291 4	238/238 8	171/175 6 171/171 2	
	soldiers (8)	204/220 8	124/128 5 124/124 3	133/153 3 153/155 5	273/273 8	134/136 4 134/134 2 136/136 2	90/99 6 99/99 2	267/291 3 269/291 5	238/238 8	171/175 5 171/171 3	
	male nymphs (8)	204/220 4 220/220 4	124/124 2 124/128 6	133/153 5 153/155 3	273/273 8	134/136 6 134/134 1 136/136 1	90/99 1 99/99 7	269/291 6 267/291 2	238/238 8	171/175 3 171/171 5	
	female nymph 1	220/220	124/124	153/155	273/273	134/136	99/99	269/291	238/238	171/171	
	female nymph 2	204/220	124/128	153/155	273/273	136/136	90/99	269/291	238/238	171/171	
	female nymph 3	220/220	124/124	133/153	273/273	134/136	99/99	269/291	238/238	171/175	
	female nymph 4	204/220	124/124	133/153	273/273	134/136	99/99	269/291	238/238	171/171	
	female nymph 5	204/220	124/124	153/155	273/273	134/136	99/99	269/291	238/238	171/171	
	female nymph 6	220/220	124/124	133/153	273/273	136/136	99/99	269/291	238/238	171/175	
	female nymph 7	204/220	124/128	153/155	273/273	134/136	99/99	267/291	238/238	171/171	
	female nymph 8	220/220	124/128	133/153	273/273	136/136	99/99	267/291	238/238	171/175	
	female aspirant 1	220/220	124/124	153/153	273/273	134/134	99/99	267/267	238/238	171/171	
	female aspirant 2	220/220	124/124	153/153	273/273	134/134	99/99	269/269	238/238	175/175	
	female aspirant 3	220/220	124/124	153/153	273/273	134/134	99/99	269/269	238/238	171/171	
	female aspirant 4	220/220	124/124	153/153	273/273	134/134	99/99	267/267	238/238	175/175	
	female aspirant 5	220/220	124/124	153/153	273/273	136/136	99/99	267/267	238/238	171/171	
	female aspirant 6	220/220	124/124	153/153	273/273	134/134	99/99	267/267	238/238	171/171	
	female aspirant 7	220/220	124/124	153/153	273/273	134/134	99/99	269/269	238/238	171/171	
	female aspirant 8	220/220	124/124	153/153	273/273	136/136	99/99	267/267	238/238	175/175	
PG	parental genotypes (inferred)	204/204 204/220	124/128 124/124	133/157 153/157	275/275 273/275	134/136	90/90 99/99	269/291 285/291	238/238	171/175 171/171	
	workers (8)	204/204 8	124/128 8	133/153 3 133/157 3 153/157 1 157/157 1	275/275 6 273/275 2	136/136 5 134/134 1 134/136 2	90/99 8	291/291 1 269/285 5 269/291 2	238/238 8	171/171 4 171/175 4	
	soldiers (8)	204/204 4 204/220 4	124/128 1 124/124 7	153/157 3 133/157 2 157/157 3	275/275 4 273/275 4	136/136 3 134/134 3 134/136 2	90/99 8	291/291 1 269/285 2 269/291 2 285/291 2	238/238 8	171/171 5 171/175 3	
	female aspirant 1	204/204	128/128	153/153	273/273	134/134	99/99	291/291	238/238	171/171	
	female aspirant 2	204/204	128/128	157/157	273/273	136/136	99/99	291/291	238/238	171/171	
	female aspirant 3	204/204	128/128	157/157	275/275	136/136	99/99	291/291	238/238	171/171	
	female aspirant 4	220/220	128/128	157/157	275/275	134/134	99/99	285/285	238/238	171/171	
	female aspirant 5	220/220	128/128	157/157	273/273	136/136	99/99	285/285	238/238	171/171	
	female aspirant 6	204/220	128/128	133/153	275/275	136/136	90/90	291/291	238/238	171/171	
	female aspirant 7	204/220	128/128	133/153	275/275	136/136	90/90	291/291	238/238	171/171	
	female aspirant 8	204/204	128/128	153/153	273/273	136/136	99/99	285/285	238/238	171/171	

SUPPORTING INFORMATION

Colony	Caste (n)	Locus									
		<i>Ctub-21</i>	<i>Ctub-43</i>	<i>Ctub-47</i>	<i>Ctub-58</i>	<i>Ctub-72</i>	<i>Ctub-74</i>	<i>Ctub-80</i>	<i>Ctub-84</i>	<i>Ctub-88</i>	
		Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	
PH	parental genotypes (inferred)	220/220 204/220	124/124	133/133 133/157	275/275 273/275	134/136 134/140	90/90 90/99	287/291 269/269	238/238	171/171	
	workers (8)	204/220 2 220/220 3	124/124 8	133/157 4 133/133 4	273/275 4 275/275 3	134/140 1 136/140 2 134/136 2 134/134 3	90/90 5 90/99 2	269/291 3 269/287 2	238/238 6	171/171 8	
	soldiers (8)	204/220 4 220/220 3	124/124 8	133/157 5 133/133 2	273/275 5 275/275 2	134/140 1 136/140 4 134/136 2 134/134 1	90/90 4 90/99 4	269/291 3 269/287 4	238/238 8	171/171 8	
	male nymphs (8)	220/220 6 204/220 2	124/124 8	133/157 4 133/133 4	273/275 4 275/275 4	134/140 2 136/140 1 134/136 4 134/134 1	90/90 3 90/99 5	269/291 4 269/287 4	238/238 8	171/171 8	
	female nymph 1	204/220	124/124	133/157	273/275	136/140	90/99	269/291	238/238	171/171	
	female nymph 2	220/220	124/124	133/157	273/275	134/136	90/90	269/287	238/238	171/171	
	female nymph 3	220/220	124/124	133/133	273/275	136/140	90/90	269/287	238/238	171/171	
	female nymph 4	220/220	124/124	133/133	275/275	136/140	90/90	269/291	238/238	171/171	
	female nymph 5	220/220	124/124	133/133	275/275	134/140	90/90	269/291	238/238	171/171	
	female nymph 6	220/220	124/124	133/133	275/275	136/140	90/90	269/287	238/238	171/171	
	female nymph 7	204/220	124/124	133/133	273/275	134/140	90/99	269/291	238/238	171/171	
	female nymph 8	204/220	124/124	133/133	275/275	134/134	90/90	269/287	238/238	171/171	
	female aspirant 1	204/220	124/124	133/133	275/275	134/136	90/90	269/291	238/238	171/171	
	female aspirant 2	220/220	124/124	157/157	-	140/140	90/90	269/269	238/238	171/171	
	female aspirant 3	220/220	124/124	157/157	275/275	134/134	90/90	269/269	238/238	171/171	
	female aspirant 4	220/220	124/124	157/157	275/275	134/134	90/90	269/269	238/238	171/171	
	female aspirant 5	220/220	124/124	157/157	275/275	140/140	90/90	269/269	238/238	171/171	
	female aspirant 6	220/220	124/124	133/157	273/275	134/136	90/90	269/291	238/238	171/171	
	female aspirant 7	204/220	124/124	133/157	273/275	134/134	90/99	269/291	238/238	171/171	
	female aspirant 8	220/220	124/124	133/133	273/275	134/140	90/90	269/287	238/238	171/171	
PI	workers (8)	220/220 5 204/220 2 204/204 1	124/124 8	153/153 3 133/153 5	273/273 8	136/136 7 134/136 1	90/99 5 99/99 3	291/291 8	238/238 8	171/175 5 171/171 2 175/175 1	
	soldiers (8)	220/220 1 204/220 4 204/204 3	124/124 8	133/153 8	273/273 8	136/136 5 134/136 3	90/99 3 99/99 3 90/90 2	291/291 8	238/238 8	171/175 8	
	neotenic queen 1	220/220	124/124	133/153	273/273	136/136	99/99	291/291	238/238	175/175	
	neotenic queen 2	220/220	124/124	133/153	273/273	136/136	99/99	291/291	238/238	171/175	
	neotenic queen 3	204/220	124/124	153/153	273/273	136/136	90/99	291/291	238/238	175/175	
	neotenic queen 4	204/220	124/124	133/153	273/273	136/136	99/99	291/291	238/238	171/171	
	neotenic queen 5	204/220	124/124	133/133	273/273	134/136	90/99	291/291	238/238	171/171	
	neotenic queen 6	204/220	124/124	133/153	273/273	136/136	90/99	291/291	238/238	171/175	
	neotenic queen 7	220/220	124/124	153/153	273/273	136/136	99/99	291/291	238/238	175/175	
	neotenic queen 8	220/220	124/124	153/153	273/273	136/136	90/99	291/291	238/238	171/175	

SUPPORTING INFORMATION

Colony	Caste (n)	Locus									
		<i>Ctub- 21</i>	<i>Ctub- 43</i>	<i>Ctub- 47</i>	<i>Ctub- 58</i>	<i>Ctub- 72</i>	<i>Ctub- 74</i>	<i>Ctub- 80</i>	<i>Ctub- 84</i>	<i>Ctub- 88</i>	
		Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	Genotype n	
PJ	primary king	220/220	124/124	133/153	273/275	136/136	90/99	269/291	238/238	171/175	
	workers (8)	220/220 8	124/124 8	133/153 4 153/153 4	273/275 3 273/273 4 275/275 1	136/136 8	99/99 8	269/269 3 269/291 5	238/238 8	171/175 3 175/175 5	
	soldiers (8)	220/220 8	124/124 8	133/153 4 153/153 4	273/275 4 273/273 2 275/275 2	136/136 8	99/99 4 90/99 3 90/90 1	269/269 3 269/291 5	238/238 8	171/175 3 175/175 5	
	female aspirant 1	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	female aspirant 2	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	female aspirant 3	220/220	124/124	153/153	275/275	136/136	90/90	291/291	238/238	175/175	
	female aspirant 4	220/220	124/124	133/133	273/273	136/136	90/90	269/269	238/238	175/175	
	female aspirant 5	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	female aspirant 6	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	female aspirant 7	220/220	124/124	153/153	273/273	136/136	99/99	269/269	238/238	175/175	
	female aspirant 8	220/220	124/124	153/153	273/273	136/136	99/99	269/291	238/238	175/175	
	neotenic queen 1	220/220	124/124	153/153	273/273	136/136	99/99	269/269	238/238	175/175	
	neotenic queen 2	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	neotenic queen 3	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	neotenic queen 4	220/220	124/124	133/153	275/275	136/136	90/99	269/269	238/238	175/175	
	neotenic queen 5	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	neotenic queen 6	220/220	124/124	153/153	273/273	136/136	99/99	269/269	238/238	175/175	
	neotenic queen 7	220/220	124/124	153/153	275/275	136/136	99/99	269/269	238/238	175/175	
	neotenic queen 8	220/220	124/124	133/153	273/275	136/136	90/99	269/269	238/238	175/175	
	ergatoid queen	220/220	124/124	153/153	273/275	136/136	99/99	269/269	238/238	171/175	
PK	primary king	220/220	128/128	133/133	273/275	134/134	90/99	269/285	238/238	171/175	
	workers (8)	220/220 6 204/220 2	124/128 4 128/128 4	133/153 2 133/133 5 133/157 1	273/275 5 275/275 1 273/273 2	134/134 7 134/136 1	90/99 7 99/99 1	269/285 1 267/285 2 269/269 4 267/269 1	238/238 8	171/171 5 171/175 3	
	soldiers (8)	220/220 6 204/220 2	124/128 5 128/128 3	133/133 4 133/157 4	273/275 4 275/275 3 273/273 1	134/134 4 134/136 4	90/99 5 90/90 2 99/99 1	269/285 2 267/285 2 269/269 2 267/269 2	238/238 8	171/171 4 171/175 4	
	male alates (8)	220/220 5 204/220 3	124/128 4 128/128 4	133/133 3 133/157 5	273/275 4 275/275 2 273/273 2	134/134 5 134/136 3	90/99 4 90/90 1 99/99 2	267/285 2 269/269 2 267/269 3	238/238 8	171/171 5 171/175 3	
	female alate 1	204/220	124/128	133/157	273/273	134/134	90/99	-	238/238	171/171	
	female alate 2	204/220	128/128	133/133	273/275	134/134	90/99	267/285	238/238	171/175	
	female alate 3	204/220	124/128	133/133	273/275	134/136	90/99	267/269	238/238	171/175	
	female alate 4	220/220	128/128	133/133	273/275	134/136	90/99	269/269	238/238	171/175	
	female alate 5	204/220	124/128	133/133	273/275	134/136	99/99	269/269	238/238	171/171	
	female alate 6	204/220	128/128	133/133	275/275	134/136	90/99	267/285	238/238	171/175	
	female alate 7	204/220	128/128	133/157	275/275	134/136	90/99	267/285	238/238	171/171	
	female alate 8	220/220	128/128	133/133	273/275	134/136	90/99	267/285	238/238	171/175	
	female aspirant 1	204/204	124/124	157/157	275/275	134/134	99/99	267/267	238/238	171/171	
	female aspirant 2	204/204	124/124	157/157	275/275	134/134	99/99	267/267	238/238	171/171	
	female aspirant 3	220/220	124/124	157/157	273/273	134/134	90/90	267/267	238/238	171/171	
	female aspirant 4	220/220	124/124	157/157	275/275	134/134	99/99	291/291	238/238	171/171	
	female aspirant 5	204/204	124/124	157/157	273/273	134/134	99/99	267/267	238/238	171/171	
	female aspirant 6	204/204	124/124	157/157	273/273	134/134	99/99	269/269	238/238	171/171	
	female aspirant 7	220/220	128/128	157/157	275/275	136/136	90/90	269/269	238/238	171/171	
	female aspirant 8	204/204	128/128	157/157	275/275	134/134	90/90	269/269	238/238	171/171	
	neotenic queen 1	220/220	124/128	133/153	273/275	136/136	90/99	267/291	238/238	171/175	
	neotenic queen 2	204/220	124/128	133/153	273/275	134/136	90/99	269/291	238/238	171/171	
	neotenic queen 3	220/220	128/128	133/133	273/273	134/134	90/99	267/285	238/238	171/175	
	neotenic queen 4	204/220	124/128	133/157	275/275	134/134	90/99	267/269	238/238	171/171	
	neotenic queen 5	220/220	124/128	133/133	273/275	134/134	90/99	267/285	238/238	171/171	
	neotenic queen 6	204/220	124/128	133/153	273/275	134/136	90/90	269/291	238/238	171/171	
	neotenic queen 7	220/220	124/124	133/133	275/275	136/136	90/90	269/269	238/238	171/171	
	neotenic queen 8	204/220	128/128	133/157	275/275	134/136	90/99	267/285	238/238	171/175	

SUPPORTING INFORMATION

Table S4. Genotypes recorded in four analyzed colonies of *Spinitermes trispinosus*.

Fully homozygous individuals in bold, genotypes containing alleles exclusive to the mother or one of the inferred parents in red.

colony	caste (n)	locus					
		<i>Ctub- 42</i>		<i>Ctub- 72</i>		<i>Ctub- 95</i>	
		genotype	n	genotype	n	genotype	n
SA	primary king	249/249		138/141		105/105	
	primary queen	249/253		143/143		118/118	
	workers	249/253	3	138/143	3	105/118	6
	(7)	249/249	4	141/143	4		
	female aspirant 1	253/253		143/143		118/118	
SB	primary king	249/253		141/143		108/111	
	primary queen	249/249		132/132		105/105	
	workers	249/249	6	132/143	5	105/108	7
	(9)	249/253	3	132/141	2	105/111	2
	female aspirant 1	249/253		132/143		105/108	
	female aspirant 2	249/249		132/143		105/108	
SC	parental genotypes (<i>inferred</i>)	249/251		132/143		118/121	
		249/249		132/132		111/118	
	workers	249/249	5	132/132	4	111/121	4
	(8)	249/251	3	132/143	4	111/118	1
						118/121	1
						118/118	2
	neotenic queen 1	249/251		132/132		111/121	
SD	parental genotypes (<i>inferred</i>)	249/253		132/138		108/108	
		249/249				108/111	
	workers	249/249	2	132/132	1	108/108	5
	(7)	249/253	5	132/138	5	108/111	2
				138/138	1		
	female nymph 1	249/249		132/132		108/108	
	female nymph 2	249/253		132/138		108/108	
	female aspirant 1	249/249		132/132		108/108	
	female aspirant 2	249/249		132/132		108/108	

SUPPORTING INFORMATION

Table S5. Genotypes recorded in five analyzed colonies of *Inquilinitermes inquilinus*. Fully homozygous individuals in bold, genotypes containing alleles exclusive to the mother or one of the inferred parents in red.

colony	caste (n)	locus													
		linq-03		linq-04		linq-07		linq-12		linq-14		linq-15		linq-16	
		genotype	n	genotype	n	genotype	n	genotype	n	genotype	n	genotype	n	genotype	n
IA	parental genotypes (inferred)	175/177		180/182		220/220		239/241		265/265		270/272		275/283	
		173/177		182/182		214/220		243/245		259/259		268/268		275/275	
	workers (8)	177/177	2	180/182	5	220/220	2	241/245	3	259/265	7	268/270	4	275/275	3
		173/175	4	182/182	3	214/220	5	239/243	1			268/272	4	275/283	4
		173/177	2					239/245	3						
								241/243	1						
	female nymph 1	173/173		182/182		214/214		245/245		259/259		268/268		275/275	
IB	female aspirant 1	177/177		182/182		220/220		243/243		259/259		268/268		275/275	
	primary king	175/177		182/182		220/220		241/247		259/269		255/268		275/275	
	primary queen	173/173		182/182		207/214		241/241		259/259		270/272		275/283	
	workers (4)	173/175	4	182/182	4	207/220	2	241/241	3	259/259	1	255/272	3	275/283	2
						214/220	2	241/247	1	259/269	3	255/270	1	275/275	2
	male aspirant 1	173/175		182/182		214/220		241/247		259/269		255/270		275/283	
IC	male aspirant 2	173/175		182/182		214/220		241/247		259/269		255/270		275/275	
	male aspirant 3	173/175		182/182		207/220		241/247		259/269		255/272		-	
	female aspirant 1	173/173		182/182		-		241/241		-		272/272		-	
	female aspirant 2	173/173		182/182		214/214		241/241		259/259		272/272		283/283	
	parental genotypes (inferred)	167/167		182/182		226/226		235/235		259/269		270/272		277/277	
		175/175				220/220		243/243		259/259		255/255		275/275	
ID	workers (8)	167/175	8	182/182	6	220/226	5	235/243	7	259/259	3	255/270	5	275/277	4
										259/269	4	255/272	2		
	male nymphs (3)	167/175	3	182/182	3	220/226	3	235/243	3	259/269	3	255/272	3	275/277	3
	female nymph 1	167/175		182/182		220/226		235/243		259/259		255/270		275/277	
	female nymph 2	167/175		182/182		220/226		235/243		259/259		255/270		275/277	
	female nymph 3	167/175		182/182		220/226		235/243		259/259		255/272		275/277	
IE	neotenic male	167/175		182/182		220/226		235/243		259/269		255/272		275/277	
	neotenic queen 1	167/175		182/182		220/226		235/243		259/259		255/270		275/277	
	neotenic queen 2	175/175		182/182		220/220		243/243		259/259		255/255		275/275	
	primary king	173/177		180/182		214/220		243/245		259/269		268/268		275/281	
	primary queen	175/175		182/182		220/220		243/243		259/259		255/255		275/275	
	workers (8)	175/177	2	182/182	3	220/220	2	243/243	3	259/269	4	255/268	8	275/281	2
IF		173/175	6	180/182	5	214/220	6	243/245	5	259/259	4			275/275	6
	workers (8)	175/177	6	182/182	8	220/222	2	243/243	4	263/265	3	255/268	3	275/275	2
		177/177	1			216/220	4	241/241	2	259/263	3	255/270	2	275/279	3
		175/175	1			216/222	1	241/243	2	259/265	2	268/270	1	275/277	3
						220/220	1					268/268	1		
												255/255	1		
IG	male nymphs (5)	175/177	3	182/182	5	216/222	3	243/243	1	263/265	1	255/270	1	275/275	1
		177/177	2			220/220	2	241/241	1	263/269	1	268/268	4	277/277	1
								241/243	2	259/265	2			271/279	1
								231/241	1	259/269	1			277/279	1
														279/279	1
IH	female nymph 1	175/177		182/182		216/220		241/243		259/263		255/270		279/279	
	female nymph 2	177/177		182/182		216/216		243/243		259/259		270/270		279/279	
	female nymph 3	177/177		182/182		216/216		243/243		259/259		270/270		279/279	
	female nymph 4	175/177		182/182		220/220		231/241		259/263		268/268		279/279	
	female nymph 5	175/175		182/182		220/220		243/243		263/263		255/255		279/279	
II	neotenic queen 1	175/175		182/182		220/220		243/243		263/263		255/255		275/275	
	neotenic queen 2	177/177		182/182		222/222		243/243		263/263		268/268		275/277	
	neotenic queen 3	177/177		182/182		216/216		241/243		263/263		270/270		275/279	
	neotenic queen 4	177/177		182/182		216/222		241/241		259/263		268/270		275/279	
	neotenic queen 5	175/175		182/182		220/220		243/243		259/263		255/255		275/275	
	neotenic queen 6	177/177		182/182		216/216		243/243		263/263		270/270		275/275	
IIA	neotenic queen 7	175/175		182/182		220/220		241/241		259/259		270/270		275/275	
	neotenic queen 8	175/177		182/182		216/220		243/243		259/259		255/270		275/277	