SUPPLEMENTARY MATERIALS

Supplementary Table I. Elemental quantities (ppb) from ICP-MS analysis of wire, brood collected from cells overlapping wire, and brood collected from cells adjacent to wire (control). Elements below lower limit of detection indicated with "<"

Sample ID	Weight (g)	Arsenic (As)	Cadmium (Cd)	Chromium (Cr)	Cobalt (Co)	Copper (Cu)	Iron (Fe)	Lead (Pb)	Manganese (Mn)	Vanadium (V)	Zinc (Zn)
2014											
Wire	N/A	230	<82	1,960	230	6,140	6,460,000	57	37,600	5,130	67
Wire Brood 1	0.10	139	139	17,200	139	25,200	1,310,000	3,850	13,500	139	163,000
Wire Brood 2	0.10	96	96	1,540	96	13,600	1,650,000	1,080	12,500	96	50,800
Wire Brood 3	0.15	39	39	39	39	6,390	406,000	1,020	3,620	39	23,000
Wire Brood 4	0.11	57	57	1,100	57	7,750	243,000	1,070	3,350	57	32,300
Wire Brood 5	0.12	60	60	97	60	4,540	337,000	1,040	4,180	60	35,400
Control Brood 1	0.11	69	571	7,140	357	3,690	649,000	1,370	4,800	69	46,600
Control Brood 2	0.15	67	67	67	67	14,000	128,000	1,960	3,440	67	57,600
Control Brood 3	0.13	114	114	1,500	114	15,500	50,800	1,220	4,910	114	60,800
Control Brood 4	0.15	85	85	85	85	12,800	524,000	2,660	5,500	85	50,600
Control Brood 5	0.18	76	76	2,410	76	10,600	225,000	2,380	4,870	76	43,800
2015											
Wire	N/A	<300	<300	21,200	<300	37,800	53,300,000	887	296,000	1,240	150,000
Wire Brood 1	0.15	<20	<20	<20	<20	9,130	104,000	130	3,790	<20	33,100
Wire Brood 2	0.15	<20	<20	<20	<20	7,850	89,400	<20	2,530	<20	60,900
Wire Brood 3	0.15	<20	<20	<20	<20	5,990	115,000	114	2,880	<20	17,900
Wire Brood 4	0.13	<23.1	<23.1	<23.1	<23.1	8,350	493,000	287	6,390	<23.1	55,900
Wire Brood 5	0.21	<14.3	<14.3	<14.3	<14.3	7,440	276,000	34.4	14,300	<14.3	68,700
Wire Brood 6	0.18	<16.7	<16.7	<16.7	<16.7	8,260	283,000	65.6	15,500	<16.7	1,310,000
Wire Brood 7	0.21	<14.3	<14.3	24	<14.3	7,910	240,000	48	6,900	<14.3	802,000
Wire Brood 8	0.17	<17.6	<17.6	342	<17.6	8,510	327,000	120	21,600	<17.6	3,940,000
Wire Brood 9	0.17	<17.6	<17.6	<17.6	<17.6	4,520	102,000	64	3,630	<17.6	15,800
Wire Brood 10	0.17	<17.6	<17.6	<17.6	<17.6	7,330	140,000	56	3,040	<17.6	19,900
Wire Brood 11	0.2	<15	<15	<15	<15	6,780	308,000	328	8,740	<15	304,000
Wire Brood 12	0.18	<16.7	<16.7	<16.7	<16.7	7,050	220,000	29.6	5,330	<16.7	231,000
Wire Brood 13	0.19	<15.8	<15.8	<15.8	<15.8	7,660	140,000	58.4	33,500	<15.8	2,520,000
Control Brood 1	0.14	<21.4	<21.4	<21.4	<21.4	7,430	15,400	526	1,460	<21.4	15,700
Control Brood 2	0.19	<15.8	<15.8	<15.8	<15.8	8,550	30,700	<15.8	3,130	<15.8	44,900
Control Brood 3	0.16	<18.8	<18.8	<18.8	<18.8	8,870	25,100	<18.8	2,260	<18.8	18,100
Control Brood 4	0.14	<21.4	<21.4	501	<21.4	9,330	113,000	34.4	34,300	<21.4	3,900,000
Control Brood 5	0.21	<14.3	<14.3	145	<14.3	8,280	127,000	<14.3	17,800	<14.3	2,280,000
Control Brood 6	0.21	<14.3	<14.3	121	<14.3	8,680	59,800	83.2	23,700	<14.3	2,410,000

~~**Control Brood 7**~~	0.15	<20	<20	802	<20	11,400	1,150,000	47.2	40,100	<20	2,970,000
Control Brood 8	0.19	<15.8	<15.8	<15.8	<15.8	5,220	211,000	56.8	7,510	<15.8	1,160,000
Control Brood 9	0.16	<18.8	<18.8	382	<18.8	4,730	31,200	150	5,610	<18.8	448,000
Control Brood 10	0.20	<15	<15	<15	<15	7,120	48,900	<15	2,030	<15	34,700
Control Brood 11	0.17	<17.6	<17.6	<17.6	<17.6	4,240	14,500	<17.6	1,700	<17.6	21,100
Control Brood 12	0.17	<17.6	<17.6	<17.6	<17.6	4,730	18,000	248	2,440	<17.6	16,500
Control Brood 13	0.16	<18.8	<18.8	<18.8	<18.8	6,080	15,300	<18.8	1,500	<18.8	17,100

Supplementary Table II. Brood removal rate comparisons between colonies for control and wire-associated brood (from Chi-Square analysis, using a Bonferroni corrected significance threshold of $p \leq 0.005$ for pairwise comparisons to control the family-wise error rate)

Colony		Pearson Chi-Square
Control Brood Removal		
1	2	(χ^2=0.186; d.f.=1; p=0.666)
	3	(χ^2=0.588; d.f.=1; p=0.443)
	4	(χ^2=0.272; d.f.=1; p=0.602)
	5	(χ^2=52.282; d.f.=1; p<0.001)
2	3	(χ^2=0.042; d.f.=1; p=0.838)
	4	(χ^2=0.00; d.f.=1; p=0.989)
	5	(χ^2=25.820; d.f.=1; p<0.001)
3	4	(χ^2=0.075; d.f.=1; p=0.784)
	5	(χ^2=39.387; d.f.=1; p<0.001)
4	5	(χ^2=49.142; d.f.=1; p<0.001)
Wire-Associated Brood Removal		
1	2	(χ^2=13.360; d.f.=1; p<0.001)
	3	(χ^2=0.350; d.f.=1; p=0.554)
	4	(χ^2=22.522; d.f.=1; p<0.001)
	5	(χ^2=4.589; d.f.=1; p=0.032)
2	3	(χ^2=16.102; d.f.=1; p<0.001)
	4	(χ^2=46.841; d.f.=1; p<0.001)
	5	(χ^2=25.761; d.f.=1; p<0.001)
3	4	(χ^2=15.663; d.f.=1; p<0.001)
	5	(χ^2=2.187; d.f.=1; p=0.139)
4	5	(χ^2=6.357; d.f.=1; p=0.012)