

Image	Population				Population (%)		Difference (°F)	Average			Temp, °F (warm side)		Temp, °F (cool side)	
	observed (no)	warm side (no)	cool side (no)	difference (%)	warm side	cool side		preferred	warm side (below 92,2 °F)	cool side (above 90,5 °F)	Smart	Digital	Smart	Digital
0710232131	26	11	15	15%	42%	58%	1,2	89,5	90,7	89,5	90,3	91,0	88,8	90,1
0910230808	37	23	14	24%	62%	38%	2,3	90,7	90,7	88,4	90,5	90,9	88,1	88,7
0710232200	27	16	11	19%	59%	41%	1,1	91,1	91,1	90,0	90,6	91,6	89,9	90,1
0710232353	26	11	15	15%	42%	58%	0,9	91,3	91,3	90,4	91,8	90,8	90,5	90,3
0910231339	30	12	18	20%	40%	60%	1,3	90,8	92,0	90,8	92,4	91,6	90,6	90,9
0910231432	23	10	13	13%	43%	57%	1,6	90,5	92,1	90,5	92,3	91,8	90,1	90,9
0910231136	31	21	10	35%	68%	32%	5,2	92,1	92,1	86,9	93,2	91,0	87,4	86,4
0910231628	20	11	9	10%	55%	45%	0,3	92,2	92,2	91,9	91,5	92,8	91,5	92,3
0910231230	25	11	14	12%	44%	56%	1,3	91,0	92,4	91,0	91,5	93,2	89,9	92,1
0710232105	23	11	12	4%	48%	52%	2,9	89,9	92,8	89,9	93,9	91,6	89,7	90,0
0910231311	23	9	14	22%	39%	61%	1,7	91,2	92,9	91,2	93,0	92,7	90,8	91,6
0710231708	23	11	12	4%	48%	52%	1,5	91,7	93,2	91,7	92,8	93,6	91,0	92,3
0910231257	22	8	14	27%	36%	64%	1,8	91,6	93,4	91,6	93,0	93,7	91,0	92,1
0710231750	28	12	16	14%	43%	57%	2,7	90,8	93,5	90,8	92,8	94,1	90,1	91,4
0910231154	35	22	13	26%	63%	37%	5,1	93,6	93,6	88,4	94,6	92,5	89,2	87,6
0710231830	33	11	22	33%	33%	67%	2,0	93,0	95,0	93,0	94,2	95,7	92,4	93,6
0710231613	26	5	21	62%	19%	81%	3,1	92,5	95,6	92,5	95,7	95,4	92,3	92,7
0710231605	30	5	25	67%	17%	83%	4,5	92,3	96,8	92,3	96,8		92,3	
0710231541	27	2	25	85%	7%	93%	4,7	94,4	99,1	94,4	100,0	98,1	93,7	95,0

<b>Object</b>	<a href="#">The Madagascar hissing cockroach</a> ( <a href="#">Gromphadorhina oblongonota, 1st-5th molt</a> )
<b>Setup</b>	<a href="#">Plastic container with holes</a>
	Heat Reflective Material
	<a href="#">Heat mat with thermostat</a>
	2 smart thermometers, 2 digital thermometers
<b>Pre-Conditions</b>	1) Lack of food during the day and during the experiment. Cockroaches can drag food onto their legs and other nymphs that could be on opposite container's sides can move to the other (more/less warm) side.
	2) Stable low air humidity. When spraying the container, the moisture is distributed unevenly and cockroaches can move to the opposite (more/less warm) side.
	3) Daytime. At night, cockroaches are more active, so their movement can be chaotic.
	4) The container lid is always open. After vibration of the container, the movement of cockroaches will be chaotic.
	5) Constantly switched on lamp. If cockroaches are in a dimly lit place and a bright light suddenly turns on, they will begin to run away from their original place.