Table S1. *Post hoc* condition * region interaction statistics for brain nuclei showing significant differences for *cfos* cell densities.

Region	Sensory conditions	t	P
nPPa	Audio-visual vs. Auditory	$T_{186}= 4.832$	<0.001
ATn	Audio-visual vs. Auditory	$T_{174}= 2.982$	0.0171
	Audio-visual vs. Control	$T_{186}= 2.731$	0.0347
Vv-r	Audio-visual vs. Auditory	$T_{174}= 7.976$	<0.001
	Audio-visual vs. Control	$T_{186}= 4.071$	<0.001
	Control vs. Auditory	$T_{185}= 3.88$	<0.001
	Control vs. Visual	$T_{186}= 3.32$	0.0059
	Visual vs. Auditory	$T_{189}= 7.17$	<0.001

Table S2. Pearson correlation coefficients (R) and P-values (P) of discriminant function coefficients and female affiliative behaviors and male courtship behaviors. Bold indicates significant differences at P < 0.05.

			Female time in association zone	Female time at the barrier	Male quivers
Control	Function 1	R	-0.3502012	-0.1829885	N/A
		P	0.4413	0.6945	N/A
	Function 2	R	-0.3968177	-0.3622721	N/A
		P	0.3781	0.4245	N/A
Auditory	Function 1	R	-0.08566125	0.118062	-0.3717778
		P	0.8402	0.7807	0.3645
	Function 2	R	0.1932665	-0.1514787	-0.09723729
		P	0.6465	0.7203	0.8188
Visual	Function 1	R	-0.06753063	-0.06749679	-0.6034098
		P	0.8989	0.8989	0.2047
	Function 2	R	-0.6627444	-0.5039489	-0.09668451
		P	0.1514	0.3081	0.8554
Audio-visual	Function 1	R	0.1228724	-0.000813068	-0.05551924
		P	0.793	0.9986	0.9059
	Function 2	R	-0.7600583	-0.7570834	-0.5503829
		P	**0.04737**	**0.04876**	0.2005

Table S3. Pearson correlation coefficients (R) and *P*-values (P) of *cfos* cell densities in brain nuclei of subject gravid females in control conditions (non-reproductive auditory and visual signals). Bold indicates significant differences at P < 0.05.

		Dl-g	TPp	Vv-c	nPPa	Vv-r	Vc	Vs	Vd	TL	TS
ATn	R	0.680	0.706	-0.159	-0.103	-0.199	-0.136	-0.307	-0.339	0.281	-0.298
	P	0.093	0.076	0.733	0.826	0.669	0.772	0.502	0.457	0.541	0.516
Dl-g	R		0.630	-0.153	-0.006	-0.150	0.482	0.125	-0.689	0.008	-0.715
	P		0.130	0.743	0.989	0.749	0.273	0.789	0.087	0.987	0.071
TPp	R			0.198	0.480	0.371	0.182	0.311	-0.112	0.410	-0.385
	P			0.671	0.275	0.413	0.696	0.498	0.811	0.361	0.394
Vv-c	R				0.645	**0.823**	0.295	0.195	0.207	-0.137	0.069
	P				0.118	**0.023**	0.521	0.675	0.655	0.769	0.883
nPPa	R					**0.954**	0.461	0.272	0.177	0.433	0.229
	P					**0.001**	0.298	0.556	0.703	0.332	0.621
Vv-r	R						0.424	0.293	0.229	0.314	0.269
	P						0.343	0.524	0.622	0.494	0.560
Vc	R							0.367	-0.679	0.130	-0.212
	P							0.419	0.094	0.781	0.649
Vs	R								0.072	-0.100	-0.501
	P								0.877	0.832	0.252
Vd	R									-0.163	0.257
	P									0.728	0.577
TL	R										0.551
	P										0.200

Table S4. Pearson correlation coefficients (R) and *P*-values (P) of *cfos* cell densities in brain nuclei of subject gravid females in auditory conditions (reproductive auditory signals). Bold indicates significant differences at P < 0.05.

		Vv-r	TPp	Vc	Dl-g	Vv-c	nPPa	Vs	Vd	TL	TS
ATn	R	0.496	0.679	-0.257	-0.298	0.182	0.194	0.110	-0.005	-0.695	-0.517
	P	0.211	0.139	0.064	0.538	0.473	0.666	0.646	0.795	0.990	0.056
Vv-r	R		-0.090	-0.306	-0.095	0.098	0.076	0.146	-0.228	-0.594	**-0.821**
	P		0.832	0.461	0.823	0.818	0.857	0.729	0.587	0.121	**0.013**
TPp	R			-0.339	-0.345	0.093	0.064	0.109	0.003	-0.514	-0.065
	P			0.412	0.402	0.826	0.880	0.798	0.994	0.193	0.879
Vc	R				**0.743**	-0.236	-0.040	-0.430	0.349	0.394	0.134
	P				**0.035**	0.574	0.925	0.288	0.396	0.335	0.752
Dl-g	R					0.126	0.315	0.077	0.606	0.563	-0.187
	P					0.767	0.447	0.856	0.111	0.146	0.658
Vv-c	R						0.942	0.931	**0.771**	0.351	-0.400
	P						< 0.001	0.001	**0.025**	0.393	0.327
nPPa	R							**0.894**	**0.896**	0.427	-0.331
	P							**0.003**	**0.003**	0.291	0.423
Vs	R								0.671	0.329	-0.332
	P								0.068	0.426	0.422
Vd	R									0.642	-0.128
	P									0.086	0.762
TL	R										0.399
	P										0.328

Table S5. Pearson correlation coefficients (R) and *P*-values (P) of *cfos* cell densities in brain nuclei of subject gravid females in visual conditions (reproductive visual signals). Bold indicates significant differences at P < 0.05.

		TPp	TL	TS	Vv-c	Dl-g	Vs	nPPa	Vd	Vc	Vv-r
ATn	R	0.782	**0.901**	**0.974**	**0.891**	-0.197	-0.169	0.247	0.514	0.662	0.641
	P	0.066	**0.001**	**0.014**	**0.017**	0.708	0.748	0.637	0.297	0.152	0.170
TPp	R		0.582	0.720	0.558	-0.670	-0.172	0.080	0.249	0.451	0.494
	P		0.106	0.255	0.250	0.145	0.745	0.880	0.634	0.370	0.319
TL	R			**0.906**	**0.957**	0.131	-0.038	0.186	0.358	0.647	0.531
	P			**0.013**	**0.003**	0.805	0.943	0.725	0.486	0.165	0.278
TS	R				**0.947**	-0.193	-0.320	0.063	0.450	0.623	0.496
	P				**0.004**	0.714	0.536	0.906	0.371	0.186	0.317
Vv-c	R					0.017	-0.198	-0.047	0.262	0.516	0.339
	P					0.974	0.707	0.930	0.616	0.295	0.511
Dl-g	R						0.366	0.370	0.137	0.150	0.103
	P						0.475	0.470	0.796	0.777	0.846
Vs	R							0.400	-0.337	-0.340	0.070
	P							0.432	0.513	0.509	0.895
nPPa	R								0.708	0.570	**0.864**
	P								0.115	0.237	**0.026**
Vd	R									**0.863**	**0.851**
	P									**0.027**	**0.032**
Vc	R										**0.852**
	P										**0.031**

Table S6. Pearson correlation coefficients (R) and *P*-values (P) of *cfos* cell densities in brain nuclei of subject gravid females in audio-visual conditions (reproductive auditory and visual signals). Bold indicates significant differences at P < 0.05.

		nPPa	Vd	Vc	Dl-g	Vs	TL	TS	Vv-r	Vv-c	TPp
ATn	R	**0.806**	**0.903**	0.471	0.244	0.530	-0.076	-0.604	0.011	-0.523	-0.102
	P	**0.029**	**0.005**	0.286	0.598	0.222	0.872	0.151	0.982	0.229	0.828
nPPa	R		**0.841**	0.627	0.283	0.470	-0.020	-0.476	-0.040	-0.010	0.271
	P		**0.018**	0.132	0.539	0.288	0.966	0.280	0.933	0.982	0.557
Vd	R			0.338	0.444	0.611	0.167	-0.512	-0.020	-0.248	0.304
	P			0.459	0.318	0.145	0.720	0.240	0.966	0.592	0.507
Vc	R				0.371	0.264	0.088	0.000	-0.145	-0.240	-0.075
	P				0.413	0.568	0.852	1.000	0.757	0.604	0.873
Dl-g	R					0.677	**0.896**	0.382	0.292	-0.024	0.503
	P					0.095	**0.006**	0.397	0.526	0.959	0.250
Vs	R						0.683	0.268	0.610	0.030	0.417
	P						0.091	0.561	0.146	0.950	0.352
TL	R							0.690	0.443	0.230	0.620
	P							0.087	0.319	0.619	0.138
TS	R								0.376	0.414	0.332
	P								0.405	0.356	0.467
Vv-r	R									0.194	0.043
	P									0.677	0.927
Vv-c	R										0.721
	P										0.067