

Article Title:

Description of strongly heat-inducible *heat shock protein 70* transcripts from Baikal endemic amphipods

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Supplementary Table 1. Differential expression of contigs annotated as *hsp/hsc70*. *E. verrucosus*, 24 h heat shock / control

Contig name	baseMean	log2FoldChange	padj	log10padj	Best nr hit
TRINITY_DN352603_c0_g3_i1	4.57	-5.31	0.011	1.973	XP_021360006.1 heat shock cognate 71 kDa protein [Mizuhopecten yessoensis]
TRINITY_DN351897_c2_g3_i1	3.62	-4.37	0.078	1.109	ABU89874.1 heat shock protein 70, partial [Ecteinascidia turbinata]
TRINITY_DN374290_c6_g5_i1	2.29	-3.84	0.320	0.495	ACD75767.1 heat shock cognate 70 [Chanodichthys ilishaeformis]
TRINITY_DN373011_c1_g2_i1	9.02	-3.14	0.291	0.536	KMQ97439.1 heat shock 70 kDa protein cognate 4-like protein [Lasius niger]
TRINITY_DN380216_c2_g1_i10	3.58	-2.27	0.731	0.136	XP_019549197.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Aedes albopictus]
TRINITY_DN373264_c1_g1_i2	2.94	-2.18	0.226	0.647	AI200749.1 heat shock cognate 70 protein, partial [Sesamia inferens]
TRINITY_DN380216_c2_g1_i9	5.67	-1.57	0.874	0.058	XP_019549197.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Aedes albopictus]
TRINITY_DN380216_c2_g1_i8	43.86	-1.53	0.520	0.284	XP_019549197.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Aedes albopictus]
TRINITY_DN350520_c4_g3_i3	6.13	-1.42	0.253	0.597	XP_007435687.1 PREDICTED: heat shock-related 70 kDa protein 2 [Python bivittatus]
TRINITY_DN380216_c2_g1_i5	18.57	-1.34	0.854	0.068	XP_019549197.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Aedes albopictus]
TRINITY_DN370094_c4_g1_i3	8.07	-1.33	0.218	0.661	XP_015788504.1 PREDICTED: heat shock cognate 71 kDa protein-like [Tetranychus urticae]
TRINITY_DN350520_c4_g2_i2	9.06	-1.26	0.489	0.311	XP_003708652.1 PREDICTED: heat shock 70 kDa protein cognate 4 isoform X3 [Megachile rotundata]
TRINITY_DN351423_c1_g1_i4	2.43	-1.24	0.613	0.213	XP_017877146.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Ceratina calcarata]
TRINITY_DN378842_c0_g1_i1	140.33	-1.18	0.088	1.055	XP_017460793.1 PREDICTED: heat shock 70 kDa protein 1A-like isoform X2 [Rhagoletis zephyria]
TRINITY_DN372576_c0_g1_i11	3.89	-1.15	0.548	0.261	XP_012146197.1 PREDICTED: heat shock cognate 71 kDa protein-like isoform X2 [Megachile rotundata]
TRINITY_DN373264_c0_g1_i1	6.87	-1.15	0.503	0.298	XP_020468828.1 heat shock 70 kDa protein 1-like [Monopterus albus]
TRINITY_DN360827_c0_g3_i1	3.11	-1.07	0.799	0.098	CDS42930.1 heat shock protein 70 [Echinococcus multilocularis]
TRINITY_DN380832_c1_g1_i1	6.62	-1.02	0.594	0.227	CUT99763.1 heat shock protein 70 [Echinococcus multilocularis]
TRINITY_DN377277_c4_g1_i6	5.66	-0.99	0.945	0.025	AAG47839.1 heat shock protein 70 [Heterodera glycines]
TRINITY_DN350520_c4_g3_i4	3.98	-0.96	0.689	0.162	XP_019762664.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Dendroctonus ponderosae]
TRINITY_DN372576_c0_g4_i1	17.93	-0.94	0.396	0.402	XP_012255464.1 heat shock 70 kDa protein cognate 4-like [Athalia rosae]
TRINITY_DN358737_c4_g1_i2	111.78	-0.90	0.825	0.083	XP_018019096.1 PREDICTED: heat shock 70 kDa protein 14-like, partial [Hyalella azteca]
TRINITY_DN378216_c0_g2_i1	15.95	-0.76	0.758	0.120	XP_008321770.1 PREDICTED: heat shock cognate 71 kDa protein-like [Cynoglossus semilaevis]
TRINITY_DN360827_c0_g1_i8	14.44	-0.75	0.898	0.047	XP_009998966.1 PREDICTED: heat shock-related 70 kDa protein 2 [Chaetura pelagica]
TRINITY_DN350052_c0_g3_i1	2.69	-0.74	0.814	0.090	ABA02165.1 heat shock protein 70 [Homarus americanus]
TRINITY_DN372046_c0_g2_i1	9.57	-0.68	0.671	0.173	XP_004479764.1 PREDICTED: heat shock 70 kDa protein 6 [Dasytus novemcinctus]
TRINITY_DN351423_c1_g1_i15	7.75	-0.64	0.837	0.077	XP_017877146.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Ceratina calcarata]
TRINITY_DN354431_c2_g3_i1	52.18	-0.61	0.323	0.491	XP_022055649.1 heat shock 70 kDa protein 1 [Acanthochromis polyacanthus]
TRINITY_DN372576_c0_g1_i4	25.70	-0.59	0.641	0.193	XP_012146197.1 PREDICTED: heat shock cognate 71 kDa protein-like isoform X2 [Megachile rotundata]
TRINITY_DN371955_c0_g1_i3	2.99	-0.59	0.969	0.013	AAF87583.1 heat shock 70 protein [Parastromyloides trichosuri]
TRINITY_DN363756_c1_g1_i4	11.32	-0.59	0.686	0.163	AMR60410.1 heat shock protein 70 [Sinanodonta woodiana]
TRINITY_DN375937_c7_g2_i1	26.48	-0.58	0.818	0.087	XP_018017811.1 PREDICTED: heat shock 70 kDa protein II-like [Hyalella azteca]
TRINITY_DN380216_c2_g1_i4	61.18	-0.57	0.901	0.045	XP_019549197.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Aedes albopictus]
TRINITY_DN368994_c0_g1_i1	34.18	-0.56	0.967	0.014	BAO23806.1 heat shock 70 kDa protein 1 [Brachionus plicatilis]
TRINITY_DN354305_c2_g1_i4	4.42	-0.53	0.871	0.060	XP_022662585.1 heat shock cognate 71 kDa protein-like [Varroa destructor]
TRINITY_DN378567_c1_g1_i3	1046.53	-0.53	0.483	0.316	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN354313_c2_g2_i1	58.83	-0.52	0.774	0.111	ABA02164.1 heat shock protein 70 [Pachygrapsus marmoratus]
TRINITY_DN374774_c1_g4_i2	2.30	-0.48	0.923	0.035	XP_022643827.1 heat shock-related 70 kDa protein 2-like [Varroa destructor]
TRINITY_DN375872_c1_g3_i1	21.78	-0.44	0.708	0.150	XP_018521434.1 PREDICTED: heat shock 70 kDa protein-like [Lates calcarifer]
TRINITY_DN377277_c1_g1_i1	6.49	-0.44	0.821	0.086	XP_022691208.1 heat shock 70 kDa protein-like [Varroa jacobsoni]
TRINITY_DN378842_c0_g1_i2	2.75	-0.40	0.932	0.030	XP_004671914.1 PREDICTED: heat shock 70 kDa protein 1B [Jaculus jaculus]
TRINITY_DN362833_c0_g1_i1	18.82	-0.38	0.830	0.081	XP_019562417.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Aedes albopictus]
TRINITY_DN354305_c2_g1_i6	14.80	-0.38	0.871	0.060	XP_022662585.1 heat shock cognate 71 kDa protein-like [Varroa destructor]
TRINITY_DN368994_c0_g1_i2	77.38	-0.35	0.969	0.014	BAO23806.1 heat shock 70 kDa protein 1 [Brachionus plicatilis]
TRINITY_DN347208_c2_g1_i1	13.59	-0.32	0.902	0.045	ACJ03595.1 heat shock protein 70 [Hypophthalmichthys molitrix]
TRINITY_DN351802_c0_g2_i7	3.20	-0.32	0.943	0.025	XP_006772899.1 PREDICTED: heat shock 70 kDa protein 1-like [Myotis davidii]
TRINITY_DN362493_c1_g1_i6	21.91	-0.31	0.882	0.055	XP_015753655.1 PREDICTED: heat shock cognate 71 kDa protein-like [Acropora digitifera]
TRINITY_DN376172_c0_g1_i7	35.53	-0.23	0.922	0.035	XP_017135651.1 PREDICTED: heat shock 70 kDa protein cognate 1 [Drosophila miranda]
TRINITY_DN362765_c0_g2_i2	202.18	-0.21	0.937	0.028	ERG83796.1 heat shock protein 70 b2 [Ascaris suum]
TRINITY_DN370191_c0_g1_i9	15.93	-0.21	0.965	0.015	AFD62317.1 heat shock protein 70, partial [Styela plicata]
TRINITY_DN376921_c1_g1_i1	17.54	-0.18	0.932	0.031	XP_014237218.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Trichogramma pretiosum]

Supplementary Table 1. Differential expression of contigs annotated as *hsp/hsc70*. *E. verrucosus*, 24 h heat shock / control

TRINITY_DN373264_c1_g1_i4	119.93	-0.18	0.898	0.047	XP_022528366.1 heat shock 70 kDa protein [Astyanax mexicanus]
TRINITY_DN370745_c0_g2_i3	2.10	-0.17	0.971	0.013	XP_018017811.1 PREDICTED: heat shock 70 kDa protein II-like [Hyalella azteca]
TRINITY_DN375175_c0_g1_i2	21.85	-0.17	0.918	0.037	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN372576_c0_g1_i6	3.32	-0.13	0.985	0.006	XP_012146197.1 PREDICTED: heat shock cognate 71 kDa protein-like isoform X2 [Megachile rotundata]
TRINITY_DN378566_c0_g1_i3	5.23	-0.11	0.979	0.009	XP_005627220.1 heat shock 70 kDa protein 1-like isoform X1 [Canis lupus familiaris]
TRINITY_DN365031_c0_g1_i3	9.87	-0.08	0.993	0.003	XP_022643827.1 heat shock-related 70 kDa protein 2-like [Varroa destructor]
TRINITY_DN374774_c1_g4_i3	5.98	-0.02	0.995	0.002	BAO23807.1 heat shock 70 kDa protein 2 [Brachionus plicatilis]
TRINITY_DN378567_c1_g1_i5	366.96	0.00	0.999	0.000	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN379719_c0_g1_i2	2.28	0.01	0.998	0.001	XP_018007836.1 PREDICTED: heat shock cognate 71 kDa protein-like [Hyalella azteca]
TRINITY_DN363756_c1_g1_i1	2.73	0.04	0.994	0.002	XP_018610869.1 PREDICTED: heat shock cognate 71 kDa protein [Scleropages formosus]
TRINITY_DN376921_c1_g1_i2	2.34	0.04	0.997	0.001	XP_004522113.1 heat shock 70 kDa protein cognate 1 [Ceratitis capitata]
TRINITY_DN377277_c4_g1_i1	5.79	0.04	0.997	0.001	AAG47839.1 heat shock protein 70 [Heterodera glycines]
TRINITY_DN380832_c1_g3_i1	4.23	0.10	0.979	0.009	ABP93403.1 heat shock cognate 70 protein [Omphisca fuscidentalis]
TRINITY_DN378567_c1_g1_i2	2281.25	0.12	0.934	0.030	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN379719_c0_g1_i4	2.75	0.12	0.983	0.008	XP_018007836.1 PREDICTED: heat shock cognate 71 kDa protein-like [Hyalella azteca]
TRINITY_DN380671_c0_g1_i2	41.65	0.13	0.952	0.021	BAO23807.1 heat shock 70 kDa protein 2 [Brachionus plicatilis]
TRINITY_DN424227_c0_g1_i1	2.19	0.14	0.985	0.006	KPM08853.1 Sar s 28 (heat shock protein 70-like protein 5) [Sarcoptes scabiei]
TRINITY_DN378567_c1_g2_i2	3121.75	0.20	0.762	0.118	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN370094_c4_g1_i1	39.87	0.21	0.890	0.051	XP_015788504.1 PREDICTED: heat shock cognate 71 kDa protein-like [Tetranychus urticae]
TRINITY_DN357424_c0_g2_i1	134.15	0.22	0.887	0.052	XP_006772899.1 PREDICTED: heat shock 70 kDa protein 1-like [Myotis davidii]
TRINITY_DN354305_c2_g1_i5	2.10	0.24	0.977	0.010	XP_022662585.1 heat shock cognate 71 kDa protein-like [Varroa destructor]
TRINITY_DN374774_c1_g1_i1	12.33	0.25	0.901	0.045	XP_018803158.1 PREDICTED: heat shock 70 kDa protein cognate 1 [Bactrocera latifrons]
TRINITY_DN351802_c0_g2_i2	5.36	0.27	0.954	0.020	XP_006772899.1 PREDICTED: heat shock 70 kDa protein 1-like [Myotis davidii]
TRINITY_DN365302_c3_g1_i1	8.58	0.28	0.908	0.042	XP_007064665.1 PREDICTED: heat shock 70 kDa protein 1-like [Chelonia mydas]
TRINITY_DN375872_c1_g2_i4	10.69	0.29	0.952	0.021	XP_017313781.1 PREDICTED: heat shock 70 kDa protein 1 [Ictalurus punctatus]
TRINITY_DN371955_c0_g1_i2	24.32	0.30	0.809	0.092	AAF87583.1 heat shock 70 protein [Parastrongyloides trichosuri]
TRINITY_DN362493_c1_g3_i2	4.57	0.34	0.944	0.025	XP_004522113.1 heat shock 70 kDa protein cognate 1 [Ceratitis capitata]
TRINITY_DN363756_c1_g1_i2	6.80	0.39	0.895	0.048	XP_010952055.1 PREDICTED: heat shock 70 kDa protein 6 [Camelus bactrianus]
TRINITY_DN358737_c4_g1_i1	112.12	0.40	0.794	0.100	XP_018019096.1 PREDICTED: heat shock 70 kDa protein 14-like, partial [Hyalella azteca]
TRINITY_DN377277_c4_g1_i2	18.62	0.42	0.853	0.069	AAF87583.1 heat shock 70 protein [Parastrongyloides trichosuri]
TRINITY_DN373028_c0_g2_i2	14.83	0.43	0.774	0.111	XP_022643829.1 LOW QUALITY PROTEIN: heat shock cognate 71 kDa protein-like [Varroa destructor]
TRINITY_DN378559_c4_g3_i1	19.17	0.46	0.815	0.089	NP_001274490.1 heat shock-related 70 kDa protein 2 [Pelodiscus sinensis]
TRINITY_DN355554_c0_g1_i1	850.47	0.47	0.607	0.217	XP_018012862.1 PREDICTED: heat shock 70 kDa protein cognate 5-like [Hyalella azteca]
TRINITY_DN379719_c2_g1_i2	72.60	0.48	0.546	0.263	BAO23807.1 heat shock 70 kDa protein 2 [Brachionus plicatilis]
TRINITY_DN372576_c0_g1_i3	7.27	0.52	0.906	0.043	BAO23806.1 heat shock 70 kDa protein 1 [Brachionus plicatilis]
TRINITY_DN379150_c1_g1_i1	4.06	0.54	0.877	0.057	XP_022644917.1 heat shock 70 kDa protein 1-like [Varroa destructor]
TRINITY_DN377357_c2_g1_i4	7.32	0.55	0.861	0.065	AAN78300.1 heat shock protein 70 A [Heterodera glycines]
TRINITY_DN370191_c0_g3_i1	2.12	0.55	0.919	0.037	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN347332_c2_g1_i1	833.04	0.56	0.297	0.527	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN374497_c0_g1_i4	2.00	0.56	0.922	0.035	XP_015797521.1 PREDICTED: heat shock 70 kDa protein 1 [Nothobranchius furzeri]
TRINITY_DN377277_c4_g1_i4	14.74	0.58	0.808	0.093	AAG47839.1 heat shock protein 70 [Heterodera glycines]
TRINITY_DN366648_c5_g1_i2	14.37	0.58	0.817	0.088	XP_011829864.1 PREDICTED: heat shock cognate 71 kDa protein-like isoform X1 [Mandillus leucophaeus]
TRINITY_DN351802_c0_g2_i1	3.29	0.62	0.898	0.047	XP_006772899.1 PREDICTED: heat shock 70 kDa protein 1-like [Myotis davidii]
TRINITY_DN350052_c0_g2_i1	12.71	0.67	0.817	0.088	AGH32327.1 heat shock protein 70 [Cellana toreuma]
TRINITY_DN351286_c0_g3_i1	2.98	0.68	0.805	0.094	XP_011200265.1 PREDICTED: heat shock 70 kDa protein cognate 1 [Bactrocera dorsalis]
TRINITY_DN360827_c0_g1_i4	9.16	0.71	0.912	0.040	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN378216_c0_g2_i3	42.66	0.72	0.482	0.317	XP_014784774.1 PREDICTED: heat shock cognate 71 kDa protein-like [Octopus bimaculoides]
TRINITY_DN364182_c0_g1_i12	1.94	0.75	0.960	0.018	XP_015753655.1 PREDICTED: heat shock cognate 71 kDa protein-like [Acropora digitifera]
TRINITY_DN374497_c0_g1_i11	4.83	0.77	0.748	0.126	CAQ14843.1 novel protein similar to vertebrate heat shock cognate 70-kd protein (hsp70) [Danio rerio]
TRINITY_DN380425_c3_g1_i1	54.45	0.82	0.222	0.654	XP_017479226.1 PREDICTED: heat shock 70 kDa protein cognate 1 [Rhagoletis zephyria]
TRINITY_DN375872_c1_g1_i1	3.18	0.90	0.698	0.156	XP_022528366.1 heat shock 70 kDa protein [Astyanax mexicanus]
TRINITY_DN351755_c1_g3_i3	7.58	0.91	0.480	0.319	XP_009460485.1 PREDICTED: heat shock-related 70 kDa protein 2 [Nipponia nippon]
TRINITY_DN379150_c2_g5_i1	6.64	0.92	0.549	0.261	XP_018336683.1 PREDICTED: heat shock protein 70 A1-like [Agrilus planipennis]

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TRINITY_DN374946_c4_g1_i1	197.30	1.01	0.038	1.415	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN360138_c2_g1_i2	18.86	1.02	0.568	0.246	XP_017492203.1 PREDICTED: heat shock 70 kDa protein-like, partial [Rhagoletis zephyria]
TRINITY_DN355554_c0_g1_i3	251.13	1.02	0.626	0.203	XP_018012862.1 PREDICTED: heat shock 70 kDa protein cognate 5-like [Hyalella azteca]
TRINITY_DN362493_c1_g3_i1	10.95	1.13	0.312	0.505	XP_004522113.1 heat shock 70 kDa protein cognate 1 [Ceratitis capitata]
TRINITY_DN367665_c0_g2_i1	12.93	1.15	0.603	0.219	AFP54307.1 heat shock protein 70 cognate [Lycorma delicatula]
TRINITY_DN356069_c0_g2_i5	34.26	1.20	0.108	0.968	XP_012146197.1 PREDICTED: heat shock cognate 71 kDa protein-like isoform X2 [Megachile rotundata]
TRINITY_DN373011_c1_g2_i4	4.30	1.27	0.851	0.070	KMQ97439.1 heat shock 70 kDa protein cognate 4-like protein [Lasius niger]
TRINITY_DN371955_c0_g1_i4	25.83	1.29	0.584	0.234	AAF87583.1 heat shock 70 protein [Parastrongyloides trichosuri]
TRINITY_DN350520_c4_g3_i5	2.46	1.33	0.741	0.130	XP_007435687.1 PREDICTED: heat shock-related 70 kDa protein 2 [Python bivittatus]
TRINITY_DN363376_c1_g2_i4	59.56	1.39	0.630	0.201	AKC91104.1 heat shock protein 70 [Stylophora pistillata]
TRINITY_DN350520_c4_g2_i1	8.37	1.43	0.371	0.431	XP_007435687.1 PREDICTED: heat shock-related 70 kDa protein 2 [Python bivittatus]
TRINITY_DN380671_c0_g1_i3	6.11	1.49	0.833	0.079	BAO23807.1 heat shock 70 kDa protein 2 [Brachionus plicatilis]
TRINITY_DN356069_c0_g2_i4	33.03	1.51	0.785	0.105	XP_022662585.1 heat shock cognate 71 kDa protein-like [Varroa destructor]
TRINITY_DN376172_c0_g1_i5	16.46	1.56	0.118	0.928	ASS36960.1 heat shock protein 70 [Mugilogobius chulae]
TRINITY_DN374556_c0_g1_i2	4501.32	1.57	0.000	5.947	XP_018017702.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein cognate 3-like [Hyalella azteca]
TRINITY_DN354305_c2_g1_i2	7.27	1.65	0.270	0.568	XP_022662585.1 heat shock cognate 71 kDa protein-like [Varroa destructor]
TRINITY_DN356069_c0_g2_i3	40.38	1.81	0.690	0.161	XP_022662585.1 heat shock cognate 71 kDa protein-like [Varroa destructor]
TRINITY_DN359242_c3_g3_i2	16.63	1.97	0.235	0.628	ADR00357.2 heat shock 70 kDa cognate protein [Ostrinia furnacalis]
TRINITY_DN376172_c0_g1_i6	5.37	2.07	0.522	0.283	XP_013096370.1 PREDICTED: heat shock protein 70 A1-like [Biomphalaria glabrata]
TRINITY_DN363376_c1_g2_i2	20.20	2.10	0.811	0.091	AKC91104.1 heat shock protein 70 [Stylophora pistillata]
TRINITY_DN360827_c0_g1_i9	1313.52	2.39	0.000	10.236	AEX65804.1 heat shock protein 70 [Gammarus lacustris]
TRINITY_DN363376_c1_g4_i1	2.12	2.40	0.554	0.256	AAF12746.1 heat shock protein 70 [Stylophora pistillata]
TRINITY_DN360827_c0_g4_i2	3.61	3.09	0.149	0.827	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN350520_c4_g3_i1	4.88	3.13	0.076	1.119	XP_007435687.1 PREDICTED: heat shock-related 70 kDa protein 2 [Python bivittatus]
TRINITY_DN361130_c0_g1_i1	791.50	3.18	0.000	6.907	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN363376_c1_g2_i1	35.64	3.23	0.242	0.615	AKC91104.1 heat shock protein 70 [Stylophora pistillata]
TRINITY_DN360827_c0_g1_i5	1578.51	3.47	0.000	14.372	XP_018015331.1 PREDICTED: heat shock cognate 71 kDa protein [Hyalella azteca]
TRINITY_DN361130_c0_g2_i1	99.78	3.54	0.000	4.330	XP_018416155.1 PREDICTED: heat shock 70 kDa protein isoform X1 [Nanorana parkeri]
TRINITY_DN378567_c1_g4_i1	477.32	3.76	0.000	12.031	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN352603_c0_g5_i1	9.14	4.05	0.003	2.577	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN360827_c0_g1_i6	178.90	4.54	0.000	3.746	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN377992_c2_g1_i2	54.80	4.62	0.000	10.085	AMQ67154.1 heat shock protein 70b, partial [Oncorhynchus mykiss]
TRINITY_DN370191_c0_g1_i10	2.58	4.80	0.137	0.863	XP_018017811.1 PREDICTED: heat shock 70 kDa protein II-like [Hyalella azteca]
TRINITY_DN345851_c0_g1_i1	4.09	5.37	0.116	0.937	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN360827_c0_g1_i7	635.20	5.51	0.000	3.685	AEX65804.1 heat shock protein 70 [Gammarus lacustris]
TRINITY_DN377992_c2_g1_i1	5.14	5.74	0.119	0.925	AMQ67154.1 heat shock protein 70b, partial [Oncorhynchus mykiss]
TRINITY_DN352603_c0_g1_i1	14.70	6.26	0.000	3.684	XP_018015328.1 PREDICTED: heat shock 70 kDa protein-like [Hyalella azteca]
TRINITY_DN378567_c0_g1_i1	12.45	6.76	0.000	3.596	BAD99026.1 heat shock protein 70 [Mytilus galloprovincialis]
TRINITY_DN360827_c0_g1_i3	42.04	6.92	0.001	3.004	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN378567_c0_g1_i3	77.98	8.70	0.000	4.326	XP_002733703.1 PREDICTED: heat shock cognate 71 kDa protein-like [Saccoglossus kowalevskii]
TRINITY_DN371471_c1_g2_i1	176.36	8.96	0.000	11.127	AHX41277.1 heat shock protein 70, partial [Gammarus lacustris]
TRINITY_DN348745_c2_g4_i1	249.01	9.35	0.000	14.174	XP_015342943.1 PREDICTED: heat shock 70 kDa protein 1-like [Marmota marmota]
TRINITY_DN371471_c1_g1_i1	6425.13	9.45	0.000	127.724	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN377992_c3_g3_i2	157.12	9.70	0.000	9.583	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN378567_c0_g2_i1	969.34	9.89	0.000	28.690	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN354305_c1_g1_i1	1609.57	10.04	0.000	49.411	XP_018015327.1 PREDICTED: heat shock cognate 71 kDa protein-like [Hyalella azteca]
TRINITY_DN361336_c5_g1_i1	769.35	10.08	0.000	33.399	AFI60314.1 heat shock protein 70, partial [Eulimnogammarus maritimi]
TRINITY_DN371471_c1_g2_i2	626.99	10.23	0.000	21.068	AHX41264.1 heat shock protein 70, partial [Gammarus lacustris]
TRINITY_DN377992_c3_g3_i4	6219.08	10.38	0.000	106.661	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN349252_c4_g6_i1	378.49	10.87	0.000	7.505	XP_011619500.1 PREDICTED: heat shock 70 kDa protein-like, partial [Takifugu rubripes]

Supplementary Table 1. Differential expression of contigs annotated as *hsp/hsc70*. *E. cyaneus*, 24 h heat shock / control

Contig name	baseMean	log2FoldChange	padj	log10padj	Best nr hit
TRINITY_DN509878_c5_g1_i1	5.60	-2.26	0.687	0.163	XP_012712026.1 heat shock cognate 71 kDa protein-like [Fundulus heteroclitus]
TRINITY_DN474476_c1_g3_i3	2.76	-1.56	0.571	0.243	ACI25099.1 heat shock protein 70 [Oreochromis niloticus]
TRINITY_DN506093_c7_g5_i2	5.01	-1.48	0.569	0.245	AGK45629.1 heat shock protein 70 [Brachionus calyciflorus]
TRINITY_DN477288_c0_g1_i1	4.52	-1.47	0.555	0.256	AAN78300.1 heat shock protein 70 A [Heterodera glycines]
TRINITY_DN482557_c0_g1_i6	7.03	-1.47	0.862	0.065	XP_003789082.1 PREDICTED: heat shock 70 kDa protein 1 [Otolemur garnettii]
TRINITY_DN503511_c0_g1_i1	2.91	-1.40	0.709	0.149	XP_018012862.1 PREDICTED: heat shock 70 kDa protein cognate 5-like [Hyalella azteca]
TRINITY_DN478567_c0_g1_i5	5.79	-1.32	0.512	0.291	KPM07870.1 Sar s 28 (heat shock protein 70-like protein 4), partial [Sarcoptes scabiei]
TRINITY_DN510091_c1_g1_i2	9.09	-1.30	0.453	0.344	XP_022643827.1 heat shock-related 70 kDa protein 2-like [Varroa destructor]
TRINITY_DN479809_c0_g3_i2	8.18	-1.19	0.430	0.366	ARK20000.1 heat shock 70 kDa protein cognate 4 [Ampulex compressa]
TRINITY_DN483662_c2_g3_i1	4.09	-1.17	0.873	0.059	BAO23807.1 heat shock 70 kDa protein 2 [Brachionus plicatilis]
TRINITY_DN510091_c1_g1_i6	47.51	-1.04	0.517	0.286	XP_022643827.1 heat shock-related 70 kDa protein 2-like [Varroa destructor]
TRINITY_DN510132_c2_g1_i1	28.82	-0.95	0.213	0.671	ACY69994.1 heat shock protein 70 [Pelophylax lessonae]
TRINITY_DN471750_c1_g7_i1	5.77	-0.94	0.677	0.169	XP_019762664.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Dendroctonus ponderosae]
TRINITY_DN485185_c6_g3_i2	3.58	-0.93	0.907	0.042	ABX89903.1 inducible heat shock protein 70 [Tigriopus japonicus]
TRINITY_DN497572_c2_g1_i2	6.25	-0.80	0.976	0.010	XP_011153497.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Harpegnathos saltator]
TRINITY_DN505627_c0_g1_i4	34.04	-0.77	0.762	0.118	XP_015788504.1 PREDICTED: heat shock cognate 71 kDa protein-like [Tetranymphos urticae]
TRINITY_DN510132_c2_g1_i3	11.81	-0.73	0.659	0.181	XP_020468877.1 heat shock 70 kDa protein 1 [Monopterus albus]
TRINITY_DN492220_c3_g3_i2	6.00	-0.69	0.956	0.019	XP_017479226.1 PREDICTED: heat shock 70 kDa protein cognate 1 [Rhagoletis zephyria]
TRINITY_DN505627_c0_g1_i2	4.72	-0.66	0.916	0.038	XP_015366535.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Diuraphis noxia]
TRINITY_DN492870_c2_g5_i1	2.85	-0.65	0.960	0.018	AGK45629.1 heat shock protein 70 [Brachionus calyciflorus]
TRINITY_DN510091_c1_g1_i1	31.36	-0.65	0.938	0.028	XP_022706516.1 heat shock-related 70 kDa protein 2-like [Varroa jacobsoni]
TRINITY_DN491353_c1_g1_i2	113.95	-0.61	0.329	0.482	XP_018019096.1 PREDICTED: heat shock 70 kDa protein 14-like, partial [Hyalella azteca]
TRINITY_DN471750_c0_g1_i3	2.20	-0.59	0.948	0.023	XP_022644917.1 heat shock 70 kDa protein 1-like [Varroa destructor]
TRINITY_DN511027_c1_g3_i2	235.26	-0.58	0.233	0.633	ABX89903.1 inducible heat shock protein 70 [Tigriopus japonicus]
TRINITY_DN481896_c0_g1_i1	2.87	-0.55	0.945	0.025	XP_015788504.1 PREDICTED: heat shock cognate 71 kDa protein-like [Tetranymphos urticae]
TRINITY_DN460395_c0_g1_i1	6.71	-0.54	0.898	0.047	XP_019562417.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Aedes albopictus]
TRINITY_DN495692_c0_g2_i3	12.81	-0.51	0.940	0.027	XP_014237218.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Trichogramma pretiosum]
TRINITY_DN507307_c0_g1_i7	3.32	-0.48	0.966	0.015	XP_014237218.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Trichogramma pretiosum]
TRINITY_DN510278_c0_g1_i1	3.06	-0.38	0.969	0.014	XP_015269980.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein 1-like, partial [Gekko japonicus]
TRINITY_DN500648_c5_g1_i3	39.44	-0.35	0.842	0.075	XP_022528366.1 heat shock 70 kDa protein [Astyanax mexicanus]
TRINITY_DN489626_c2_g1_i1	6.25	-0.30	0.991	0.004	XP_022055649.1 heat shock 70 kDa protein 1 [Acanthochromis polyacanthus]
TRINITY_DN486605_c6_g1_i1	3.57	-0.25	0.983	0.008	XP_020444855.1 heat shock 70 kDa protein 1-like [Monopterus albus]
TRINITY_DN477288_c0_g4_i3	4.23	-0.19	0.985	0.007	ACU00685.1 heat shock protein 70 [Bursaphelenchus mucronatus]
TRINITY_DN511031_c0_g1_i3	7.60	-0.16	0.987	0.006	XP_007883910.1 PREDICTED: heat shock-related 70 kDa protein 2-like [Callorhinchus milii]
TRINITY_DN505003_c0_g2_i1	84.60	-0.15	0.966	0.015	XP_020468877.1 heat shock 70 kDa protein 1 [Monopterus albus]
TRINITY_DN478567_c0_g1_i3	6.81	-0.11	0.992	0.004	KPM07870.1 Sar s 28 (heat shock protein 70-like protein 4), partial [Sarcoptes scabiei]
TRINITY_DN505152_c1_g2_i2	50.56	-0.09	0.986	0.006	KPM07870.1 Sar s 28 (heat shock protein 70-like protein 4), partial [Sarcoptes scabiei]
TRINITY_DN511027_c1_g3_i1	29.40	-0.07	0.988	0.005	ABX89903.1 inducible heat shock protein 70 [Tigriopus japonicus]
TRINITY_DN479809_c0_g3_i1	10.54	-0.01	0.999	0.000	ARK20000.1 heat shock 70 kDa protein cognate 4 [Ampulex compressa]
TRINITY_DN482557_c0_g1_i7	12.07	0.03	0.999	0.001	XP_003789082.1 PREDICTED: heat shock 70 kDa protein 1 [Otolemur garnettii]
TRINITY_DN482557_c0_g1_i3	14.59	0.03	0.998	0.001	XP_003789082.1 PREDICTED: heat shock 70 kDa protein 1 [Otolemur garnettii]
TRINITY_DN485185_c6_g3_i1	7.31	0.03	0.998	0.001	ABX89903.1 inducible heat shock protein 70 [Tigriopus japonicus]
TRINITY_DN510091_c1_g1_i3	6.58	0.05	0.998	0.001	XP_022643827.1 heat shock-related 70 kDa protein 2-like [Varroa destructor]
TRINITY_DN497572_c2_g1_i1	17.68	0.06	0.996	0.002	XP_011153497.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Harpegnathos saltator]
TRINITY_DN497572_c2_g1_i3	5.86	0.08	0.997	0.001	XP_011153497.1 PREDICTED: heat shock 70 kDa protein cognate 4 [Harpegnathos saltator]
TRINITY_DN506404_c0_g1_i1	43.66	0.10	0.991	0.004	BAO23807.1 heat shock 70 kDa protein 2 [Brachionus plicatilis]
TRINITY_DN499714_c0_g1_i1	31.01	0.18	0.961	0.017	XP_018015331.1 PREDICTED: heat shock cognate 71 kDa protein [Hyalella azteca]
TRINITY_DN478248_c8_g2_i1	28.19	0.18	0.979	0.009	XP_016974239.1 PREDICTED: heat shock 70 kDa protein cognate 1 [Drosophila rhopaloa]
TRINITY_DN507307_c0_g1_i6	27.08	0.24	0.968	0.014	XP_014237218.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Trichogramma pretiosum]
TRINITY_DN503511_c0_g2_i1	879.66	0.24	0.895	0.048	XP_018012862.1 PREDICTED: heat shock 70 kDa protein cognate 5-like [Hyalella azteca]
TRINITY_DN508803_c1_g2_i1	4.45	0.34	0.968	0.014	AGQ45967.1 heat shock protein 70 kDa [Diamesa cinerella]
TRINITY_DN490611_c1_g1_i2	34.97	0.35	0.884	0.054	XP_015371967.1 PREDICTED: heat shock protein 70 B2-like [Diuraphis noxia]
TRINITY_DN508779_c1_g1_i7	3.72	0.39	0.957	0.019	XP_014237218.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Trichogramma pretiosum]
TRINITY_DN481600_c0_g2_i1	10.05	0.50	0.927	0.033	AGH32327.1 heat shock protein 70 [Cellana toreuma]

Supplementary Table 1. Differential expression of contigs annotated as *hsp/hsc70*. *E. cyaneus*, 24 h heat shock / control

TRINITY_DN506939_c1_g6_i1	2241.76	0.50	0.340	0.468	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN506939_c1_g1_i3	5821.98	0.51	0.168	0.775	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN492220_c3_g3_i1	63.04	0.55	0.426	0.371	XP_021963158.1 heat shock 70 kDa protein cognate 4 [Folsomia candida]
TRINITY_DN481757_c2_g3_i1	79.72	0.56	0.377	0.424	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN489626_c2_g1_i4	17.78	0.59	0.950	0.022	XP_022055649.1 heat shock 70 kDa protein 1 [Acanthochromis polyacanthus]
TRINITY_DN507602_c0_g3_i1	8.39	0.63	0.833	0.079	AFX84560.1 70 kDa heat shock protein [Lygus hesperus]
TRINITY_DN487463_c1_g1_i1	16.50	0.66	0.772	0.112	XP_014289183.1 PREDICTED: major heat shock 70 kDa protein Ba-like [Halyomorpha halys]
TRINITY_DN491223_c3_g2_i3	744.25	0.67	0.132	0.880	XP_002754570.3 PREDICTED: heat shock cognate 71 kDa protein isoform X1 [Callithrix jacchus]
TRINITY_DN472333_c1_g1_i1	6.39	0.72	0.826	0.083	XP_018017702.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein cognate 3-like [Hyalella azteca]
TRINITY_DN496394_c0_g1_i2	15.85	0.75	0.576	0.239	NP_001298215.1 heat shock protein 70 B2-like [Biomphalaria glabrata]
TRINITY_DN497931_c0_g1_i8	10.11	0.83	0.753	0.123	XP_004479764.1 PREDICTED: heat shock 70 kDa protein 6 [Dasypus novemcinctus]
TRINITY_DN477288_c0_g2_i1	5.35	0.86	0.871	0.060	ASB34118.1 heat shock protein 70 [Eurytemora pacifica]
TRINITY_DN510573_c5_g1_i9	2.44	0.89	0.978	0.009	XP_007064665.1 PREDICTED: heat shock 70 kDa protein 1-like [Chelonia mydas]
TRINITY_DN489446_c0_g1_i3	4.07	0.89	0.915	0.039	XP_008052478.1 heat shock 70 kDa protein 6 [Carlito syrichta]
TRINITY_DN500039_c1_g2_i1	2.28	0.98	0.918	0.037	GAA37571.1 heat shock 70kDa protein 1/8 [Clonorchis sinensis]
TRINITY_DN506939_c1_g1_i1	36.13	1.08	0.286	0.544	XP_018011061.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Hyalella azteca]
TRINITY_DN489111_c0_g4_i1	89.27	1.10	0.008	2.089	XP_014237218.1 PREDICTED: heat shock 70 kDa protein cognate 4-like [Trichogramma pretiosum]
TRINITY_DN503324_c4_g1_i6	2934.08	1.13	0.222	0.654	XP_018017702.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein cognate 3-like [Hyalella azteca]
TRINITY_DN506093_c8_g1_i1	15.65	1.28	0.285	0.546	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN471750_c1_g2_i1	8.51	1.31	0.236	0.627	XP_004624350.1 PREDICTED: heat shock 70 kDa protein 1 isoform X1 [Octodon degus]
TRINITY_DN481757_c2_g2_i1	11.65	1.33	0.429	0.368	XP_018015331.1 PREDICTED: heat shock cognate 71 kDa protein [Hyalella azteca]
TRINITY_DN511031_c0_g1_i1	2.83	1.55	0.838	0.077	XP_007883910.1 PREDICTED: heat shock-related 70 kDa protein 2-like [Callorhinchus milii]
TRINITY_DN509878_c5_g1_i9	9.72	1.59	0.916	0.038	XP_012712026.1 heat shock cognate 71 kDa protein-like [Fundulus heteroclitus]
TRINITY_DN509878_c5_g1_i4	2.62	1.71	0.591	0.228	XP_012712026.1 heat shock cognate 71 kDa protein-like [Fundulus heteroclitus]
TRINITY_DN506939_c1_g1_i2	12.11	1.72	0.036	1.446	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN501569_c7_g1_i1	2.26	1.84	0.477	0.321	XP_007102348.1 PREDICTED: heat shock-related 70 kDa protein 2 [Physeter catodon]
TRINITY_DN491353_c1_g1_i1	6.29	1.92	0.921	0.036	XP_018019096.1 PREDICTED: heat shock 70 kDa protein 14-like, partial [Hyalella azteca]
TRINITY_DN464290_c0_g1_i1	76.08	2.58	0.000	3.800	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN506646_c0_g1_i1	10.81	2.78	0.023	1.642	ADJ96610.1 heat shock protein 70-p4 [Oxycera pardalina]
TRINITY_DN475692_c3_g1_i3	2.17	3.07	0.763	0.118	ABU89874.1 heat shock protein 70, partial [Ecteinascidia turbinata]
TRINITY_DN464290_c0_g1_i2	120.44	3.18	0.000	4.716	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN480896_c0_g3_i1	24.43	3.18	0.009	2.058	XP_005102694.1 PREDICTED: heat shock 70 kDa protein 4-like [Aplysia californica]
TRINITY_DN501569_c6_g1_i1	2.15	3.46	0.221	0.656	XP_013072146.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein-like [Biomphalaria glabrata]
TRINITY_DN491223_c3_g2_i2	323.26	3.68	0.000	8.546	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN506939_c0_g1_i4	619.96	3.91	0.000	11.344	AEX65804.1 heat shock protein 70 [Gammarus lacustris]
TRINITY_DN506939_c0_g1_i1	633.32	3.94	0.000	9.500	AEX65804.1 heat shock protein 70 [Gammarus lacustris]
TRINITY_DN501606_c2_g1_i1	40.96	4.66	0.000	8.999	XP_013790449.1 heat shock 70 kDa protein cognate 4-like [Limulus polyphemus]
TRINITY_DN501286_c2_g2_i1	40.13	5.30	0.000	5.264	XP_015797521.1 PREDICTED: heat shock 70 kDa protein 1 [Nothobranchius furzeri]
TRINITY_DN494491_c1_g1_i3	8.75	5.48	0.005	2.264	BAO23807.1 heat shock 70 kDa protein 2 [Brachionus plicatilis]
TRINITY_DN482083_c1_g3_i2	6.27	6.08	0.007	2.139	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN482083_c0_g2_i1	38.07	6.20	0.000	9.500	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN506646_c4_g1_i1	7.88	6.45	0.082	1.086	XP_006896234.1 PREDICTED: heat shock 70 kDa protein 1-like [Elephantulus edwardii]
TRINITY_DN503324_c4_g1_i3	10.72	6.92	0.002	2.793	XP_018017702.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein cognate 3-like [Hyalella azteca]
TRINITY_DN407492_c0_g1_i1	11.05	6.93	0.000	4.750	AHX41289.1 heat shock protein 70, partial [Gammarus decorosus]
TRINITY_DN510477_c2_g2_i2	15.93	7.45	0.000	4.318	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]
TRINITY_DN510477_c2_g1_i1	493.64	8.18	0.000	52.595	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN510477_c2_g3_i1	1311.90	8.32	0.000	90.525	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN510477_c2_g3_i2	723.91	8.42	0.000	28.068	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN475381_c10_g1_i1	587.07	8.52	0.000	33.822	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN510477_c2_g2_i4	6655.88	8.67	0.000	56.782	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN510477_c2_g2_i3	57.91	8.97	0.000	7.646	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN510477_c2_g2_i1	115.41	9.42	0.000	14.017	XP_018015326.1 PREDICTED: heat shock cognate 71 kDa protein-like [Hyalella azteca]
TRINITY_DN482083_c1_g3_i1	100.96	9.86	0.000	15.249	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]
TRINITY_DN482083_c0_g2_i2	128.92	10.13	0.000	14.484	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]

Supplementary Table 2. Characteristics of the most abundant *hsp/hsc70* transcripts in the transcriptome assemblies.

Assembly	Contig name	qstart	qend	sstart	send	evalue	Best nr hit	overexpressed	log2FC	padj
<i>E. verrucosus</i> (EveBCdTP1)	TRINITY_DN347332_c2_g1_i1	2	406	390	524	5,81E-83	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]	FALSE	0,6	2,97E-01
	TRINITY_DN349252_c4_g6_i1	326	3	401	508	2,01E-70	XP_011619500.1 PREDICTED: heat shock 70 kDa protein-like, partial [Takifugu rubripes]	TRUE	10,9	3,13E-08
	TRINITY_DN361130_c0_g1_i1	1	339	499	611	3,67E-70	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]	TRUE	3,2	1,24E-07
	TRINITY_DN361336_c5_g1_i1	346	2	87	201	4,85E-63	AFI60314.1 heat shock protein 70, partial [Eulimnogammarus maritujii]	TRUE	10,1	3,99E-34
	TRINITY_DN371471_c1_g1_i1	1	894	217	514	0	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	9,5	1,89E-128
	TRINITY_DN371471_c1_g2_i2	2	301	132	231	6,26E-60	AHX41264.1 heat shock protein 70, partial [Gammarus lacustris]	TRUE	10,2	8,56E-22
	TRINITY_DN374556_c0_g1_i2	3	554	429	611	9,98E-70	XP_018017702.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein cognate 3-like [Hyalella azteca]	TRUE	1,6	1,13E-06
	TRINITY_DN377992_c3_g3_i2	3	53	595	611	8,24E-08	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	9,7	2,61E-10
	TRINITY_DN377992_c3_g3_i4	3	146	564	611	1,77E-12	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	10,4	2,18E-107
	TRINITY_DN378567_c0_g2_i1	1	369	48	170	7,21E-69	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	9,9	2,04E-29
	TRINITY_DN378567_c1_g1_i2	1	324	492	599	2,66E-73	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]	FALSE	0,1	9,34E-01
	TRINITY_DN378567_c1_g2_i2	3	1058	75	426	0	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]	FALSE	0,2	7,62E-01
<i>E. cyaneus</i> (EcyBCdTP1)	TRINITY_DN475381_c10_g1_i1	356	3	279	396	4,38E-66	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	8,5	1,51E-34
	TRINITY_DN491223_c3_g2_i3	73	258	1	62	1,5E-41	XP_002754570.3 PREDICTED: heat shock cognate 71 kDa protein isoform X1 [Callithrix jacchus]	FALSE	0,7	1,32E-01
	TRINITY_DN503324_c4_g1_i6	3	815	340	611	3,6E-105	XP_018017702.1 PREDICTED: LOW QUALITY PROTEIN: heat shock 70 kDa protein cognate 3-like [Hyalella azteca]	FALSE	1,1	2,22E-01
	TRINITY_DN506939_c1_g1_i3	1	636	400	611	1E-142	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]	FALSE	0,5	1,68E-01
	TRINITY_DN506939_c1_g6_i1	1	780	85	344	0	AFI60316.1 heat shock protein 70 [Eulimnogammarus verrucosus]	FALSE	0,5	3,40E-01
	TRINITY_DN510477_c2_g1_i1	2	283	17	110	8,12E-57	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	8,2	2,54E-53
	TRINITY_DN510477_c2_g2_i4	1	873	321	611	0	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	8,7	1,65E-57
	TRINITY_DN510477_c2_g3_i1	7	564	139	324	1,7E-120	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	8,3	2,99E-91
	TRINITY_DN510477_c2_g3_i2	1	660	105	324	1,7E-140	CAQ60114.1 70kDa heat shock protein [Gammarus locusta]	TRUE	8,4	8,55E-29

Supplementary Table 2. Characteristics of the most abundant *hsp/hsc70* transcripts in the transcriptome assemblies.

Assembly	Contig name	Amino acid motifs						
		TVPAYFND	NEPTAA	IFDLGGGTF DVSIL	RARFEEL (cytos.)	GPTIEEVD (cytos.)	ADAYLGTN	C-end GG*P
<i>E. verrucosus</i> (EveBCdTP1)	TRINITY_DN347332_c2_g1_i1							
	TRINITY_DN349252_c4_g6_i1							
	TRINITY_DN361130_c0_g1_i1					V		V (GGMP)
	TRINITY_DN361336_c5_g1_i1	V	V					
	TRINITY_DN371471_c1_g1_i1							
	TRINITY_DN371471_c1_g2_i2	V	V	V				
	TRINITY_DN374556_c0_g1_i2							
	TRINITY_DN377992_c3_g3_i2					V		
	TRINITY_DN377992_c3_g3_i4					V		
	TRINITY_DN378567_c0_g2_i1	V	V					
	TRINITY_DN378567_c1_g1_i2							
	TRINITY_DN378567_c1_g2_i2	V	V	V	V		V	
<i>E. cyaneus</i> (EcyBCdTP1)	TRINITY_DN475381_c10_g1_i1							
	TRINITY_DN491223_c3_g2_i3							
	TRINITY_DN503324_c4_g1_i6							
	TRINITY_DN506939_c1_g1_i3	V	V	V	V		V	
	TRINITY_DN506939_c1_g6_i1					V		
	TRINITY_DN510477_c2_g1_i1							
	TRINITY_DN510477_c2_g2_i4					V		
	TRINITY_DN510477_c2_g3_i1	V	V	V				
	TRINITY_DN510477_c2_g3_i2	V	V	V				

Supplementary Table 3. Mortality under heat shock.

Species	Temperature tested, °C	Experimental period	Number of animals tested	Number of dead animals	Percent mortality	Mean percent mortality (per animal)	Median percent mortality (by experiment)
<i>E. verrucosus</i>	24	September (2013)	10	1	10%	17%	10%
	24	September (2013)	10	1	10%		
	24	September (2013)	10	0	0%		
	25	September (2013)	10	1	10%		
	25	September (2013)	10	3	30%		
	25	September (2013)	10	3	30%		
	24.5	May (2018)	12	3	25%		
<i>E. cyaneus</i>	24	September (2013)	10	1	10%	15%	10%
	24	September (2013)	10	4	40%		
	24	September (2013)	10	2	20%		
	25	September (2013)	10	1	10%		
	25	September (2013)	10	0	0%		
	25	September (2013)	10	0	0%		
	25.5	June (2018)	14	3	21%		

Supplementary Table 4. Oligonucleotides used in this work.

Primer pair name	Forward primer sequence 5' to 3'	Reverse primer sequence 5' to 3'	Region	Reference
Ecyaneus_gapdh	ACTCTACTCACGGCGTCTTCAAG	CGCTGGACTCTACGATGTACTCAG	<i>gapdh</i> , the 5' part of the gene	Protopopova <i>et al.</i> 2014
HSP70_Eve (Eve_hsp70_I)	CCAAGATGAAGGAGACTGCTGATG	CGCCGTGGGTTGTTGATAATC	<i>hsp70</i> , the region coding for the NBD (approx. amino acids 125-178)	Protopopova <i>et al.</i> 2014
HSP70_Ecy (Ecy_hsp70_I)	GCCATTGCCTACGGTCTTGAC	CTCCTGCGTGAAGTGGTTGAC	<i>hsp70</i> , the region coding for the NBD (approx. amino acids 125-178)	Protopopova <i>et al.</i> 2014
HSP70_EveEcy_tr_3 (hsp70_II)	GACACCCATCTTGGAGGAGA	GCGCTTGTTTTGTGTGATGT	<i>hsp70</i> , the region coding for the NBD (approx. amino acids 256-259)	This work
HSP70_EveEcy_tr_1 (hsp70_III)	GCTTTCTGGACTTCCACCAG	CGTTGGTGATGGTGATCTTG	<i>hsp70</i> , the region coding for the SBD (approx. amino acids 462-506)	This work

Supplementary Data 1. Nucleotide sequences of contigs in Supplementary Table 2.

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Supplementary Data 2. Multiple sequence alignment for Fig. 5.

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 TAGGSNPG---A---TGG-----SGPTIEEVD

Supplementary Data 3. Phylogenetic tree for Fig. 5.

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